A Trip to Cuba and the Southern States, No. 2.

"It is a goodly sight to see
What Heaven hath done for this delicious land!
What fruits of fragrance blush on every tree!
What goodly prospects o'er the hills expand!"

RARELY did we meet with an American just landed in Cuba who was not highly delighted with the place and the climate. The general first impression was to make a purchase, and settle down for the winter in this charming sunshine. This impression lasted for about two weeks with most, while others remained true to the first feeling of these "new-born delights," and one or two of our casual acquaintances actually effected purchases. Generally, however, discoveries were not slow in being made that the difficulties of the language, and the habits of the people, with certain fears for the future aspect of political affairs, the necessity of a license to reside there —all these mostly disenchanted us before we had seen much of the island.

The fruits, the perpetual summer, and less oppressive weather than we had been led to expect, were all great inducements; added to this and the low price of land where it had plenty of fruit but no slaves upon it, was the vicinity to home, tolerably regular mails, and some American society. The habits of the people, so different from our own, came in last as the final discouragement, but Cuba seems to have been designed for the winter residence of the Northerners, and such, if it is acquired, it will unquestionably become. Climate is virtually capital, not only in the easy production of animal, but vegetable food; for instance, the banana, which is estimated to yield 4,000 pounds of nutriment on 1,076 square feet, enables a man to maintain a family by working very moderately for two days in seven, the produce of the plant being one hundred and thirty-three times more than that of wheat, and forty-four times more than the yield of the potato, exceeding, as Humboldt supposes, all plants upon the globe in the amount of food it yields on a given area.

ROYAL PALM.
Sixty to eighty feet high.

Linnæus said that the first abode of our species was the region of the palm, and that man is essentially *palmiverous*. It may be, that the races in these palmiverous regions are not the most progressive, because, though climate is much, race is more. The balmy and the spontaneous fruits of Paradise, would probably fail to energize some races of

our own continent. But, again, is it not true, that the eternal war against climate, prolonged winters, &c., consumes as large a portion of man's labor as an annual conflagration? and may we not hope that, while the Anglo-Saxon in the tropics, though he might work less in such an atmosphere, would enjoy more, and with the untiring energies of his mind devote more time to his improvement, and as nearly as he could, realize the greatest happiness he is capable of? The problem has never been fairly tried; it is destined to be, however, and, so far as such an experiment is desirable, we are inclined to be a fillibuster, though no further.

Palm of the low grounds near Trinidad, with the flower stalks.

The rapid strides of our steamship as she glided past the Moro, the Punta, and Cabanas batteries, again found all hands on deck, at early sunrise; the realization of all our anticipations was quite equal to the scene our excited imaginations had conjured up, but words fail to convey such impressions, and we pass on to the full view of Havana. Its antique architecture—its mixture of grandeur and poverty—its cathedrals and churches, gloomy, and worn by time—its Moorish arches and peculiar roofs—contrasted finely with the trim shipping of all nations lying at anchor in great numbers in its noble and safe bay. The opposite villages of Casa Blanca and Regla (the sugar depots), had more of a home look, and we felt the American spirit near us when the several new steam ferry boats, exactly like our own, came paddling along.

We were soon surrounded by anxious but good looking faces, desirous to convey us on shore, but the irregulars were commanded to *vamos*, and we were soon grouped into parties, descending into large boats under the wings of the various hotel keepers whom we had solicited to take charge of us, all such establishments being well filled. A dollar for an indorsement of our passports, which allowed us as a favor to reside on the island for a month, discovered the fact that our money was at a discount of ten per cent. with these officials, and, in regular commercial dealings, of five; our own dimes, however (the latter being the general currency for small transactions), pass for a ride in a volante, &c., as well as a quarter of a dollar.

Our party patronized Wolcott's Hotel, where we were very uncomfortable, at a nominal charge of three dollars and a half a day, but which, with etceteras, was generally nearly double that sum. The other houses are not much better, except Mrs. Almy's, where Dr. Kane expired, and which, though rather low in the front elevation, is a most comfortable hotel, well conducted, and, consequently, difficult to get access to by the new-comer, who finds all the rooms occupied. The Havana table presents some novelties that are striking; bananas and plantains, fried in sweet oil, take the place of potatoes, and for desert, oranges, bananas, and other fruits, with guava jelly. The winter vegetables are those of our midsummer, including tomatoes, peas, egg-plants, &c. &c.

The *Plaza de Armas*, in front of the Governor-General's palace, is well planted with flowering shrubs, and in the centre, are four Royal Palms, of considerable height. When this scene is lighted up of a moonlight evening—the bands playing, and the whole population assembled (the ladies in full dress, in their volantes, and the gentlemen stopping to smoke, admire, and chat with them)—the entire scene is one of those Oriental, and yet European pictures that can only be seen under the tropics, and alone would pay for a trip to this far away and fairy island.

The *Cupidon*, a glorious hybiscus with rosy red blossoms, makes a great show in the Plaza. The Mango-Tree, which greatly resembles in form the Horsechestnut, is one of the best shade trees of the island, and here must be noted the new fact to us, that scarcely any person ever plants a shade tree near his dwelling; the sea breezes from either ocean are found to be better than shade. In this respect, the residences of the wealthy have to us an unimproved aspect, which it is hard to reconcile with wealth or even comfort. The Cocoa-Nut and the Royal Palm are, however, incorporated in every scene on the cultivated portion of the island, and one never gets tired of their beauty.

The reader will suppose that, after a glance at the town, peeling numerous oranges, and being astonished at the novel fruit and wonderful fish markets, we at once began to sally out among the gardens, plantations, and trees. But how to describe what is so novel! The difficulty is appalling, and, in a limited space, impossible; impressions only can be attempted. Sir J. E. Smith, the eminent botanist, strikingly remarks that "no writer whatever has rendered the natural productions of the happiest and most luxurious climate of the globe half so interesting or instructive as Linnæus has made those of his own northern country." This is eminently true, and it remains, as far as we know, a delightful task unfulfilled, to convey by means of the pen, the grand ideas which tropical vegetation, and its accompanying scenes, naturally call forth. But it must be remembered, that all is not beautiful. It had been one of our ambitions to see an Aloe hedge,* and to ride along roads bordered with our greenhouse plants. Alas! a hedge of Aloe is but a sorry sight; it is grown up and over with a thousand other plants and vines running riot in wild neglect, and really presenting little or none of the beauty we had anticipated. The Cherokee Rose about Natchez, is ten times more beautiful, and yet, with care the Aloe would make a superb fence; and *it is* a most useful one, but it occupies a large space that would otherwise be converted to profitable cultivation. All the energies of the landholders seem to be given to the cultivation of sugar, coffee, or tobacco. The ornamental, where beauty would spring up from every touch of taste, forms but little of the studies of the Cubans; but, even with their utter neglect, as a general thing, nature and the climate assert their supremacy. At every turn, some new surprise awakens the imagination, and obliges us to remember that we are in one of the richest botanical regions of the globe. But these riches are unappreciated, and as for our greenhouse plants being seen at every step, you find yourself in a region where they are too common to be admired, except by the *very few*.

A short ride on the Paséo (the afternoon drive of all that can afford to keep a volante) brings us to the Governor-General's garden, lately invaded by the railroad, but possessing some beautiful plants and superb vines. Orange-trees in full bearing and in flower, the Mammea and Sugar apples hanging on the trees all winter, and hundreds of novel specimens, would occupy a person of leisure for weeks. The botanical knowledge of the most scientific is put to an immediate and trying test in Cuba. Recognition is attempted as visions of dried herbariums float on the memory, but in general, all our party, after puzzling themselves for names, gave it up as a labor which took too much from the zest of the feast spread before us; and it was no uncommon thing for the *savan* of the party to be seen placing his specimen carelessly in his pocket, while he accepted a basket of oranges, or a bunch of bananas, or watched the *tearing-up* process, employing forks instead of knives to the pine-apple. For the purposes of study, we all determined to repeat

* The hedge most used is of the Pine-Apple family, *Bromelia pinda*, of Spanish botanists.

the trip the very next very cold winter, and remain longer in this noble field of nature.

Count Fernandina's garden, on the Cerro Road, a short distance from Havana, is the best worth visiting of any that we could hear of, and is accessible to all strangers. It occupies but a few acres, in the English style. The Araucaria Braziliensis is one of the most striking trees; it has attained a height of about twenty feet, and forms of course, a magnificent object. There is almost a total absence, in Cuba, of coniferous trees; what we call "evergreens" are not required, because they have broad, shining-leaved trees that are evergreen, which they value more highly. There is a very fine collection of palms here, including the fan-palm and one with a frond at least six feet in length. The Caoutchouc, or India-rubber tree, is also a great ornament, and attains considerable height. The Copaiba-tree and the Mahogany here first strike the eye, though common on the island. This garden is kept in the highest order, and is a grand treat to the eye. Amid the palms, the old Count has built a most sumptuous cold-water bath—quite good enough to enchant Juno, or to lave the beauties of Calypso. It is entirely lined with exquisite tiles, and the walls of the building are frescoed with mythological legends; the steps to the water are of the finest material; the colored glass of the windows throws a red tinge upon the skin, and the faultless transparency of the water tempts the eye.

The garden possesses twelve native palms, including the screw palm, and six foreign kinds. The night-blooming Cereus runs riot over an immense arbor, and vines, of colors and appearances which we never saw before, festoon themselves from every support. The Pimento, the Mammea Apple, the Gourd, or Calabash-*tree*, bearing calabashes sometimes large enough to be employed for a child's bathing-tub, each fruit hanging with its great weight on a slender limb, are astonishments which we must not go out of our way too far to describe. The gardener has succeeded in making a good lawn, by constant attention, and you soon satisfy yourself that a paradise might readily be created with the aid of such climatic accompaniments.

The house is in elegant taste, filled with European specimens of the fine arts, and luxurious furniture; hanging baskets on the inclosed piazza, look like civilization; various colored Thunbergias run riot over the lattices, of a strength and size unknown to us; and altogether, this is one of the best garden experiences to be had in Cuba; it is laid out in perfect taste, with English gardenesque effects much increased by tropical advantages. The Count is a widower, and rarely resides here. His income is perfectly beyond one's conception; they say, three thousand dollars a day! His nephew, who had been implicated in some political transactions, we found at Natchez, Mississippi, teaching Spanish to a small class, while the uncle or the Government have clutched his purse-strings, and refuse him a dollar. The name of this most gentlemanly exile is Don Manuel de Santa Cruz, and his title, by inheritance, should be Count Fernandina, Jaruco, and Mopox; he was for eight months confined in the Moro, from which he most ingeniously escaped. There is a "skeleton" even in palaces.

The Climate.—We were fortunate in obtaining a record of the thermometer, carefully kept on a plantation very nearly in the latitude of Havana, and fifty miles from it. This record is for twelve months, excepting April, when the glass was broken; the first record is April 30, 1856, the hour of observation being between twelve and one o'clock (noon), which it will be well to remember.

	THERMOMETER.
April 30, 1856	84°
Average of May	85°

	THERMOMETER.
Average of June	86°
" " July	88½°
" " August	88½°
" " September	85½°
" " October	83°
" " November	81°
" " December	80°
" " January, 1857	75°
" " February, "	75°
" " March "	80°

In January and February no fire was required, and Americans wintering there wore nothing but thin clothing.

The equability of the above averages of the thermometer at noon, so different from our own, will strike every one. Rarely does the record show the height to exceed 90° till after the first of June, and then it reaches above that height more rarely than with us, and the changes during the intervals from noon to noon, are rarely even great enough to call for a change of clothes.

As a winter residence, and as an easy means of escaping the worst periods of our northern colds, Cuba presents great attractions, and will soon be a necessity to the wealthy and the invalid.

An American Boarding-House in the Country.—In connection with this subject, it may be well to remark here, that it is a great object to visitors to reside in the interior, and thus have an opportunity of visiting familiarly the sugar and coffee estates, and examining the trees and cultivation. All can scarcely hope for introductions to resident country families where they could be thus domesticated, and, if they could, the bar of language would mostly prove a great drawback. To obviate this difficulty, Mr. L. Monson, an American, has opened a country boarding-house near the El Carolina station of the Matanzas Railroad, and, to be brief, his is the Carolina House, purporting to be kept in American fashion. The dwelling was framed in the United States, and has glass windows, in our fashion, and the spot was formerly a coffee plantation; has good fruit-trees, shady avenues, and much to admire in the way of vegetation and scenery. If Mr. Monson succeeds in getting a good housekeeper and a gardener, as he intends to do, this will be a most desirable winter residence. It is near a post-office, riding-horses are at command, and the distance from Havana not an objection.

The Rainy Season.—Most persons who read of "the rainy season" in the tropics, have probably an erroneous opinion of the duration of the showers. Residents in Cuba assure us that the expression is a misnomer as we understand it, at least, and that it is used only in contradistinction to the season of little or no rain, when vegetation is sustained by the dampness of the air. Our record, carefully kept by Mr. Monson, includes the number of showers for the six months, embracing from July 1 to December 23, with the assurance that these rains were of brief duration generally, commencing about noon, and followed by a bright sunshine nearly always:—

July,	1856	Thirteen showers of an average of half an hour.
August,	"	Showers on ten days.
September,	"	" " eighteen days.
October,	"	" " seventeen days.
November,	"	" " four days.
December 2 to the 23d,	"	Light showers.

An uncommon drought then set in; such being rarely known, visitors to the island the past winter saw its vegetation to a disadvantage, beautiful as it was,

and enjoyed less fruit in consequence, though we could judge of no diminution, except in the pine-apple. The sugar-cane was not so tall as usual, but this was compensated for by an increase of saccharine matter in what growth there was.

Judging from the above records, even the summers are not at all unbearable; persons not obliged to move about in the sun when at its warmest, might pass the summer here nearly as comfortably as in our own climate, and more so than in many of our principal cities. The health, too, is as uniformly good as in the States, the yellow fever rarely penetrating to the interior. Living always in the open air must conduce to healthy action; the drawback is probably found in *the absence of changes*, which impart a zest we perhaps undervalue at home.

Tobacco.—Respecting this popular article, and its manufacture of cigars, it may be expected, in our rambling notes, that we should say a few words. It is well known, that the tobacco plant is the product of but a small portion of the island—the southwest. A person confining himself to short rides from Havana, and to the vicinity of the railroads, would see about as much of the weed growing as he would in Pennsylvania or Connecticut, the soil in the other parts not being more propitious to the flavor than that of our own country. Good tobacco is thus a dear article, and becoming annually more so as the cultivation recedes from the great mart by the wearing out of the land, which is the case yearly. Formerly, the tobacco lands were about eighteen miles from the city; they are now at least one hundred and fifty miles distant. Large dealers in cigars make their own bargains for the crops of the extensive cultivators whose tobacco is known to them, and thus acquire a kind of monopoly of the best; smaller operators endeavor to have as good an article, by assisting the grower to new lands, and taking an interest in them. The consumer of a few thousand cigars, watches his opportunity, and when sure of a good seroon or two, purchases, and conveys it to his own house, where it is manufactured under his own eye, from a known article, and therefore to his taste. The cigar maker comes to him for a week, more or less, and charges by the thousand.

In addition to these plans, varied with the various degrees of enterprise and capital embarked, there may be seen, all over Havana, blacks and whites most industriously employed in rolling cigars; and, ten chances to one, if you stop at a posada in your rides in the neighborhood, however humble, there will be found, under a shed, or in some corner, a parcel of dark looking fellows similarly engaged; and yet, with all this industry, it is still a wonder whence proceed all the millions of smokable cigars which perfume the civilized world. Their source is to be sought for in out of the way places, in garrets, and private domains, which are out of sight, and which are delivering more or less, daily, to the great dealers who supply the capital and the raw material. Cigaritas are made by women and men who can follow at the same time another employment, such as keeping watch at the door of a hotel, &c.

Numerous small manufacturers sell their article at a low figure to the great dealers like Partigas, or the Cabanas' houses, who subject them to a rigid picking; the *best looking* on the outside, and which may have cost in the unpicked state, ten dollars per thousand, are number one, and will be charged to the unthinking American customer who looks only to the external appearance, at fifty dollars, the seconds at twenty or thirty, and the cullings will find a market at about the original price; so that one man smokes, at six or seven cents, the same tobacco exactly that better informed and more economical people get for one cent. The reputation of the (nominal) maker has much to do with the price, and this reputation, as in a thousand instances in all countries, is kept up by *outside appearances*. When a particular brand, size, and shape, have become popular in any country,

strong efforts are made to keep up this appearance, and a simulated article has to be resorted to the moment the demand exceeds the supply, which is always limited. Then come the various methods of deception; the wrapper must be exact in color, and it is dyed; the shape must be the same, and the maker skilled in this particular form must have a higher price, or he will go over to a rival house.

Instances of these kind of difficulties are constantly related, and an employer has frequently to advance large sums to his best workmen, to keep them in good humor; when this quality fails them, the rival will pay all they owe, to get them into his workshop, the best makers being always in demand, and earning from two to six dollars a day, according to their skill.

The leaf requires to be in a particular stage of moisture, to work to advantage, and you may see, as the evening hour of closing the factory comes on, the master mind is dropping or sprinkling his leaves, and laying them out all over the room in various proportions, according to ascertained necessity. And here another process is resorted to; this is of course the moment for dyeing the wrapper; but it is also the opportunity embraced to *flavor* what is to constitute the interior; a popular brand must be kept as nearly as possible of one *taste;* as in wine, it is easy to deceive in this particular, and the *filling* is immersed in a solution of other tobaccos, made to resemble as nearly as possible the flavor required. Thus, a good tasted crop will flavor a whole invoice of cigars very probably manufactured from Virginia, or tobacco imported from some other island. This is done in wines of all countries, and it is surely as fair a transaction in cigars.

Cigar making is a profitable operation, though it may be deemed of inferior importance to the sugar crop. Both combined have made money extremely abundant during the late season of high prices. Eight millions of specie arrived in Havana in March alone, and the rate of interest was but two per cent. per annum; new banks were going into operation on a speculative scale, and it was seasonably argued that cash so easily collected as it was, would lead to the ruin of many now called wealthy. Cuba has its revulsions as well as New York and Philadelphia.

The cultivation of the island is slovenly in the extreme. There is often as much difficulty experienced in ploughing the land as in a new clearing incumbered with stumps in the United States, from the underlying coral rock; our own ploughs are occasionally introduced, but the inhabitants give the preference to the annexed singular and awkward implement. The horse, ox, or mule, is geared to the end of the long shaft by a chain, and how the apparatus is made to scratch a little furrow, is a mystery to the uninitiated.

A Cuban plough!

EVERGREENS IN THE SPRING OF 1857.

BY H. W. SARGENT, WODENETHE, NEAR FISHKILL LANDING, N. Y.

In reply to your desire to know the effect of the past winter upon the newer Evergreens, I regret I shall be compelled to give you an unsatisfactory result.

A winter so unprecedented in its character as that of 1855–6, followed so im-

mediately by one even more severe and continuous in its cold, as the one just past, could not fail to be everything that was disastrous.

In addition to the excessively low temperature, we have suffered (both winters) from severe and chilling storms of rain and sleet, which completely covered the trees with ice, breaking them down, and doing immense damage. This, in connection with two such winters, has thrown out quite a large number of Evergreens, which, up to 1855, I was more than tolerably successful in cultivating. For instance: Both Cedars of Lebanon and Deodar Cedars, which have, under our preceding winters, gone through without even browning, and attained a size of twelve to fifteen feet, have, in the case of the Cedars of Lebanon, become annually deciduous, and, with Deodars (which are unquestionably less hardy), been cut down to the level of the snow-line; so also with *Abies* Morinda, Douglasii, Cephalonica, Pinsapo, Menzesii, and *Picea* Webbiana. They have all this winter lost their foliage, though the bark is good, and the buds plump and green.

If, consequently, our winters are to assume in future the character of the two last, our list of Evergreens which can be depended upon, will be of course much reduced. If, on the contrary, these extraordinary winters are only to appear occasionally, there are many additions to the list which would survive and even flourish, with only one or two severe winters to five or six fair ones. Upon the first supposition, I think I can say that the following are perfectly hardy without protection, even in such winters as the two past:—

FOLIAGE UNTOUCHED—
Pinus Lambertiana,
" Ponderosa,
" Sylvestris,
" Sylvestris pumila,
" Strobus,
" Strobus nana,
" Pumilis,
" Austriaca,
" Excelsa,
" Monticolo,
" Benthamiana,
" Cembra,
" Gerardiana,
" Pyrenaica,
" Brutia,
" Halepensis.

UNTOUCHED—
Picea Pectinata,
" Pendula,
" Balsameana,
" Balsameana folis variegatis,
" Pichta,
" Fraserii,
" Nobilis,
" Nordmaniana.

FOLIAGE UNTOUCHED—
Abies Clanbrasiliensis,
" Elegans,
" Pumila,
" Compacta,
" Pygmæa,

FOLIAGE UNTOUCHED—
Abies Hudsonii,
" Orientalis,
" Alba,
" Nigra.

GOOD, BUT BROWNED—
Abies Menzesii,
" Cephalonica,
" Pinsapo.
Juniperus Suecica,
" Communis,
" Pendula,
" Bedfordiana,
" Chinensis,
" Hispanica,
" Prostrata,
" Nana,
" Tamaricifolia,
" Sabina.
Thuja Orientalis,
" Occidentalis,
" Aurea,
" Aurea Americana,
" Siberica,
" Plicata,
" Tartarica,
" Nepalensis,
" Filiformis.
Widringtonia ericoides,
Torreya taxifolia,
Cepholotaxus Fortunii (male and female),
Thujeopsis borealis.

All the above have passed the two last winters, and many previous ones, most successfully, without losing leaf or bud. To these may be added others, which, though having lost foliage, the buds seem generally good; such as—

Pinus Ayacwhuite,
" Montezuma,
" Macrocarpa,
Abies Jezoensis,
" Pindrow,
" Webbiana,
" Smithii,
" Douglasii.
Cedrus Libani,
" Deodara,
" Africana.
Cupressus Thyoides,
Cupressus, Folis variegatis,
" Horizontalis,
" Funebris.
Saxe-Gothæa conspicua,
Fitz-Roya Patagonica.
Taxus Baccata,
" Hibernica,
" Elegans,
" Elegantissima,
" Dovaston.
Yellow-berried, Japonica, and Adpressa.
Chamæcy paris, speroidea variegata.

And thirdly, the following have stood perfectly well in an Evergreen wood where they got little or no sun:—

Cryptomeria viridis,
" nana,
Araucaria imbricata,
Deodara nana,
" viridis,
Cunninghamia sinensis.

It is not desirable, perhaps, for me to mention the complete failures, of which Libro-Cedrus Chiliensis is one, and I am afraid the Pampas Grass is another—at least, it has not yet shown signs of life.

In conclusion, I will mention, among the newer things which promise well, the White and the Violet Wistaria, the Kilmarnock and Rosemary Leaf Willow, and Weeping Amelanchier, of which Messrs. Ellwanger and Barry have fine specimens. And among the *untried* Evergreens—

Cupressus Torrulosa,
" Tournefortii,
" Lusitanica (Cedar of Goa); beautiful.
" Macrocarpa.
Pinus Jeffreyii,
" Californica,
" Tuberculata,
" Patula,
Pinus Nivea,
" Palustris.
" Calabriensis.
" Spiralis.
Juniperus Californica.
Thuja Macrocarpa,
" Washingtonia gigantea.
" Decurrens,
" Doniana.

VISITS TO COUNTRY PLACES.—NO. 11.
AROUND BALTIMORE, MD.

In passing through Baltimore one morning, we stopped by invitation at the town garden of Thomas Winans, Esq., one of those extraordinary residences which seem to the passer as if the town had grown around and inclosed a rural home, which was only bounded by the needful streets that had been run through by those delectable corporations called City Councils. But, on the contrary, Mr. Winans has pulled down a small village to make a *rus in urbe*, and, in some respects, it is the most remarkable town residence in any American city. As we should say in Philadelphia, it now occupies about as much space as one of our *squares*, but additional houses had been lately purchased, and they were also to be demolished, to make room for grass and graperies. The usual order of things is here reversed.

As you pass the place, the natural inquiry is, what prince or royal personage lives here? The answer is made by the owner himself—a self-made American artisan (and well may he be proud of the title), is the designer, and owner, and occupier.

Thomas Winans, Esq., in some way connected with the steam-engine business

or railroads, got a look into the purse of the late Emperor of Russia, and he ever since has looked upon gold instead of iron; this is reflected in various improvements on this town square, and we see, as we pass round, not only a very fine mansion, in excellent taste, and surrounded by graperies and hot-houses, but vases, statues, deer in castings, &c., but an actual stream of water and a pond, with foreign and domestic swans besporting themselves in *rather* narrow quarters, but very pretty; and among them a black one. In other places are aviaries, very judiciously constructed, and, we must say, with handsome and healthy looking occupants; the maccaw and the golden pheasants as gilded as ever.

Now take a view of the walks, where six men find constant employment, chat with George McKimmie, the intelligent gardener, get into the shadow of the Deodars, the Weeping Cypress, shake hands with Araucaria excelsa and Braziliensis, and a thousand things well known to fame, refresh under the fountain, and repeat with the poet, while you wonder that an expense which would once have bought the whole State of Illinois, should be here smoked by a town:—

> "A breath of unadulterate air,
> The glimpse of a green pasture, how they cheer
> The citizen, and brace his languid frame!
> E'en in the stifling bosom of the town,
> A garden, in which nothing thrives, has charms
> That soothe the rich possessor, much consoled
> That here and there some sprigs of mournful mint,
> Of nightshade or valerian, grace the wall
> He cultivates. These serve him with a hint
> That nature lives; that sight-refreshing green
> Is still the livery she delights to wear."

Baltimore would be but half-explored, if *Clifton Park*, the residence of *Johns Hopkins, Esq.* (quite near the city), was left unnoticed. The announcement that the horticultural party would be there on the morrow, brought us tickets, and an invitation to look about, but we were unfortunate in not having an introduction to the wealthy proprietor engaged in town affairs during the day.

A native forest of remarkably beautiful trees, is the nucleus which first attracts attention as you enter this very fine domain. We prefer the results of planting, and the interspersion of fine old evergreens which this gives, but as our merchants rise, get rich, and perish, they must, for present enjoyment, get a wood ready planted; and the American Indians knew nothing of Weeping Cypresses, Deodars, or anything that would not color a feather, or point—not a paragraph—but an arrow; so Mr. Hopkins has taken what they left him, improved what he found, planted young foreigners of merit, many of them too near his roads; and he has been uncommonly successful with his lakes—a feature of artificial improvement most rare among us, and when in fine keeping, a most valuable acquisition. Boats, and bridges, and swans, seem here most naturally at home, and we must repeat our strong admiration both of this scenery and of the superb as well as very extensive flower garden—the whole under the intelligent supervision of William Fowler, but lately so successful as the gardener to John Tucker, in our own neighborhood.

There are but few more elaborate places among us than Clifton Park. Were we inclined to be personal, we should record the striking anomaly of it, and say, with regret, that Mr. Hopkins is a bachelor; but we forbear. That fact, once stated, our readers need not learn that it is an often mooted and mysterious question with the good people of the—shall we use so well known a phrase?—"the Monumental City," whether the owner will not do as Girard did: make the whole

city his heirs, and *give* the first individual gift of a public park to an American city. We can only say, that if he should ever ask us our opinion on this momentous question, we should answer: "By all means!" It is a fairy scene where future men of taste will bless the memory of the man so fortunate as to possess, so nearly, a paradise. May it be long before he is driven from what is so evidently a labor of love.

GARDEN VEGETABLES, NO. 7.—SQUASH.

BY WILLIAM CHORLTON.

HOWEVER small the garden may be, a portion ought to be occupied by one or more of the various forms of this desirable vegetable.

The Squash family, as a kitchen edible, is originally from Astracan and the Levant, notwithstanding which, our climate is well adapted for it, and we have now, on our Western Continent, perhaps as great a variety as are to be found in any part of the world. The primitive types from which these varieties have emanated, are some three species of *Cucurbitæ*, viz: *C. melopepo*, *C. verrucosa*, and *C. ovifera*—a genus nearly allied to the melon. The requisite culture is of the simplest character, for they will thrive in almost any kind of soil, excepting an undrained swamp bottom, and may be had fit for use, from the same garden, nine months of the year. In order to obtain this, however, different sorts will have to be employed, as explained below, the best only being noticed.

Early Bush, or *Patty Pan*.—This is one of the earliest and most hardy kinds, of bushy habit. Fruit, shaped somewhat similar to the shallow pans used for baking pies in; rind, cream colored; flesh, white and tender, but wanting in flavor. Sown in a slight hotbed or the greenhouse in March, and transplanted out in May, or when the danger of frost is past, it will be ready for use early in July, in this neighborhood (lat. 40°). Three plants are enough for six feet square of ground. For the general out-door sowing, in the middle of May, drop five or six seeds in a spot, and at the aforesaid distances, cover two inches, and thin out, when fairly up, to three in each hill.

Bergen Bush.—Of similar habit; fruit, long, green-striped; flesh, more solid, and of better flavor than the above, but not so early a bearer. It may be treated in the same way in all respects.

Summer Crookneck.—This is a very beautiful looking Squash; when pure, it is white in color, and shaped like a Bell Pear, with the neck curled over to one side. It is serviceable for summer and fall use, and may be planted the same as the last, only differing as to distance, requiring the hills of plants to be eight feet asunder.

Vegetable Marrow.—The flesh of this variety is more watery and pulpy than any other, and some persons prefer it on this account; the flavor, also, is peculiar to itself, being something of a turnip minus the pungency. Fruit, creamy yellow, oblong, and of good size. Plant the same as the last.

Boston Marrow.—One of the very best for winter keeping, and of the finest flavor. Fruit, orange colored, irregularly oval, weighing from eight to twelve pounds; flesh, solid, orange yellow, sweet, and nutty. This Squash is far preferable to the pumpkin in the making of pies. Being a great grower, two plants are enough for a hill, each of which ought to be ten feet apart; even at this distance, in good ground, the yield is enormous.

Cocoa-Nut is similar in habit and quality to the Boston Marrow, but does not fruit so freely.

Winter Crookneck.—A good winter sort, of large size, but not so fine as the

Boston Marrow. The three latter varieties may be sown amongst the earliest crop of sweet corn, or between the drills of early potatoes. In this way a saving of ground is secured, and as the previous crop is away before the vines have progressed far in length, the yield of Squash is very slightly injured. These sorts, also, may be preserved good until April of the next year, provided they be perfectly ripe, and gathered before any frost has touched them. House them on a dry day, lay on a dry floor, separate from each other, and in a room where the thermometer never sinks below 40°. When piled in a heap, or kept in a damp atmosphere, they are sure to decay, while the reverse will be the case if the above advice be taken.

The good or bad cooking of a Squash makes so much difference, that it may be delicious to the taste of the epicure, or unpalatable to any animal excepting a hog; and there are some cooks who manage other things tolerably well, but yet fail in this. To remedy this evil where it does exist, the following recipe is appended, which, if followed, will serve up a dish of Squash in the best order:—

Cut into square pieces; after cutting off the rind, put these into a pan of cold water. Boil until quite soft. According to the greater solidity of each sort, so will the required time of boiling be comparatively longer. Strain through a clean towel until all the superfluous water is drained out, for on this, in a great measure, the quality depends. Beat up with a tablespoonful of untainted butter, and a little pepper and salt to taste. Serve whilst hot.

SHRUBS WITH ORNAMENTAL BERRIES.—NO. 2.

BY THOMAS MEEHAN, GERMANTOWN, PENNSYLVANIA.

18. *Gaultheria shallon* and *G. procumbens.*—Small shrubs, with handsome flowers, succeeded by numerous edible, black berries. A kind of bread has been made of the berries of the first species, in California. They are not easily grown in common garden soil, but in a bed of sandy peat or vegetable soil, in a moist, shaded, or cool situation, they are very pretty objects. Propagated by dividing the roots.

19. *Ilex.* The Holly.—The beautiful evergreen foliage of the American Holly has less to do with its enviable reputation than its bright, waxy, scarlet berries, which remain all the fall and winter till spring. Though it occasionally forms a tree of no mean dimensions, its general character is that of a strong shrub. It is rather difficult to raise, though very tractable when it has once attained a few feet in height. The berries grow best sown in moist, sandy, vegetable soil. If allowed to become dry before germinating, and after having been a short time in the ground, they will remain a long time without growing. The *I. Dahoon* is a deciduous species, native of the Southern States, not hardy, I believe, north of Philadelphia, but of great beauty where it will grow. It has long spikes of rich, scarlet berries, of the same size and shape as those of the common Holly. There are several other species belonging to this section, but none of them of much value, being so entirely eclipsed by the two named. Modern botanists have included the old genus *Prinos* under the Hollies. *I.* (*Prinos*) *verticellatus* is to the North what the Dahoon Holly is to the South. Its common name, Black Alder, is unfortunate, as there is a real Alder of that name; and to confound such a beautiful plant with another with which it has nothing in common, reduces its respectability. Before the leaves ripen, it assumes its bright red color, and as the birds do not seem partial to it, it retains its beauty most of the winter. It will grow in any soil or situation, but a moist, rich locality best suits. It grows very readily from

seeds sown as soon as ripe, or properly preserved for spring sowing. *P. ambiguus*, I have no doubt, is a mere variety of the other. *P. glaber* is a handsome, small, evergreen, with leaves like those of *Kalmia latifolia*, and small, shining, black berries. It is readily propagated by dividing its running roots, but it will only do well in a sandy, vegetable soil.

20. *Leycesteria formosa.*—In this part of the world, this plant usually gets killed to the ground, but shoots up again vigorously in spring, and, towards fall, bears a profusion of its very singular berries. It is of very easy culture, and though its berries cannot be by any means styled beautiful, they generally please by their appearance.

21. *Ligustrum vulgare.* Privet.—Common as this shrub is, I am very partial to it. It has an Oriental appearance denied to most other plants; its pure white flowers, in dense clusters, diffuse an odor which to me is very grateful; its jet black berries seemingly produced with such ease, and without the great effort it seems to cost many plants to bear their fruit; and then, the patience it exhibits, and the contentment it shows with its lot, whether favored with good, rich soil, in a desirable situation, or left to fight its way in any stony, gravelly soil—all endear it to me. There it grows so readily, that a branch stuck in by mere chance, will produce a plant at any season. There are many varieties, but the fruit of all is alike.

22. *Lonicera.* The Upright Honeysuckles.—*L. xylosteum*, the Fly Honeysuckle, is a highly ornamental shrub, growing about ten feet high, and producing, in July or August, a profusion of bright red berries, resembling large red currants. It is of the easiest culture, growing in any soil, and either in sunshine or shade. It may be raised from seed, but is usually propagated from cuttings taken off in the winter, and planted early in the spring. *L. Tartarica*, the Tartarian Honeysuckle, is similar, in general appearance, to the last, but the leaves are smooth, and the berries are of a pale amber color. *L. Ledebourii*, the Californian Upright Honeysuckle, has golden berries, but I have not noticed them in quantities sufficient to make much show.

23. *Magnolia umbrella*, or *tripetela.*—Rather a large tree than a shrub, but it has a tendency to throw up suckers or offsets, and form a thick bush. The color of the fruit varies very much in different plants, some individuals bearing pale, nearly white fruit, while others present a rich crimson. In the latter state, it is very ornamental. Efforts should be made to propagate these scarlet fruited varieties, which can readily be done by grafting on the other strong growing kinds. *Magnolia tripetela* is of the easiest culture, growing well in any light, rich soil. *Magnolia glauca*, the Swamp Laurel, though the fruit is of the same green color as the leaves, is very handsome when the deep scarlet seeds appear as the seed-vessels burst open. It does best in a moist, rich soil, though it will succeed in quite dry situations, if not in absolute clay. Magnolias do not transplant well in the fall of the year, unless very early—say September. If the roots are kept from drying, and they are well watered at planting, they will succeed better in April or May than at any other period of the year.

24. *Mitchella repens.* The Partridge Berry.—A well known, small, creeping plant, with evergreen leaves, and small crimson, holly-like berries, bearing them at all seasons, and chiefly through the winter. It only succeeds in shady places, growing around the bases of large trees, or creeping over rotten roots. There are few things handsomer of its class.

25. *Mylocaryum ligustrinum.* The Buckwheat-Tree.—I am now describing a shrub of which I know nothing practically. I can only say that it is one of the most beautiful of our native shrubs, grows naturally in Georgia and Florida, has

been in cultivation by old Bartram, and found hardy in his time (although the "oldest inhabitant" says they never had such winters as we have now a days) at Philadelphia, and that he who reintroduces it, will deserve well of his brethren.

26. *Rhamnus.* The Buckthorns.—*R. catharticus*, the common Buckthorn, so very popular in some parts as a hedge plant, is well known in that capacity, but few are aware of its highly ornamental appearance when suffered to grow as a specimen bush on the lawn. Its berries commence to ripen in September, and continue in succession till October. Birds are very fond of them, and take good care of their share. It is of the easiest culture, thriving anywhere, but in no situation so well as one that is fully exposed. Seeds grow very readily sown in either fall or spring. The *R. Caroliniensis*, Carolina Buckthorn, is a still handsomer species; the berries are larger, and more numerous, at first red, then changing to a shining black, remaining on till Christmas. (*To be continued.*)

PRACTICAL HINTS TO AMATEURS. JULY.

BY THE LATE A. J. DOWNING.

If you have a crop in your kitchen garden which looks sickly, water it once or twice with guano water (a handful of guano to a pail of water), stirring the soil with the hoe before applying the water.

This is the season of the year to give *shape* to your shrubs or plants. A little shortening-back now, on overgrown shoots, will make the dormant buds push out new shoots on parts of a shrub or tree which are deficient in foliage, so as to bring it into good shape before the season of growth is past. For small plants, that you wish to make bushy and thick, there is nothing like *pinching-off* the ends of the leading shoots while they are young. It gives you thick and compact heads of leaves, instead of few and slender shoots.

Don't be discouraged at the inroad of an insect that threatens to destroy your favorite trees or plants. Set about studying its natural history, and depend upon it, if you only get a correct notion of its habits, you can soon exterminate it by a little energy and perseverance. Tobacco water will kill any insect, if it is judiciously applied, and *perseveringly repeated*, however much they may seem to defy it at first. Always use it in the morning, or just at evening; for it is throwing away your ammunition to fire into the enemy's quarters in mid-day, when they are wide awake, and ready to dodge the fire.

If you want to propagate everblooming roses by *cuttings*, your best time is now, just as the young wood begins to harden, after the first flowers are past. A frame, sunk on the north side of a fence or wall, with a sash to cover it, will enable you to raise hundreds of roses with very little attention. Make the soil in the frame six inches deep, of rich mould, mixed with one-half fine sand. In this plant the cuttings, with a single leaf left on the top of each. Water them every evening, leaving the sash off all night, and replacing it early in the morning. In case you want them to plant out in the borders, you may let the cuttings grow in the frame where they strike all summer, covering the glass with about six inches of straw in the winter, and planting out the young plants early the next spring; but if you want them for pot culture, then, of course, plant the cuttings in pots, instead of the soil of the frame; and, in five or six weeks, they have formed new roots, so that you may repot them—one in each small pot.

To have raspberries very large and fine, you must make a new plantation every fourth year. The soil should be trenched twenty inches deep, and a quantity of coal ashes and stable manure turned well underneath. The raspberry likes a cool,

deep soil, and a top dressing of guano every spring adds greatly to the size of the fruit.

Look over your cherry-trees, and see that none of them suffer from being hide bound. If they look unnaturally small in any part of the trunk, and swollen in other parts, you may be sure this is the case; and if you do not relieve it by slitting the outer bark with your knife, the tree will soon decline. Old cherry-trees are very much improved in health and productiveness by shortening-in the long branches at this season of the year, thus forcing them to make some thrifty new shoots.

Plum-trees like a moist soil. I have found that covering the ground four inches deep with old spent *tan-bark*, is a good way of preserving the moisture, and keeping the tree in health. I scatter fresh lime thickly over the surface of the tan every year, as soon as the green fruit begins to fall. This kills every curculio that attempts to enter the ground. The tan prevents the weeds from growing, keeps the roots cool, and insures me good crops of plums. I spread it as far as the roots extend, and it wants renewing, or adding to, once in three or four years.

Don't indulge in the folly of *hilling up* all the plants you raise in your kitchen garden. If you study nature, you will see that, as plants grow older, the roots at the base of the stem always incline to *raise out* of the earth; from which it is clear that they prefer not to be wholly buried up in it. Besides, unless it is a plant that dislikes moisture, you lose half the benefit of the summer showers by piling up a hill over the roots to turn off the rain. It is much better to loosen the ground thoroughly, and keep it nearly level.

Liquid manure is of great advantage to crops in a growing state; but it has double the usual effect if applied in damp and cloudy weather.

In raising hedges, the great point is to get *breadth at the bottom*. It is easy enough to get a hedge high enough; but if you let it run up without cutting it back, so as to make a broad and thick base, you can never make that base broad and thick afterwards. Shorten back, therefore, till you achieve what you want at the bottom, and the top will afterwards take care of itself.

If you find any of your favorite fruit-trees are failing from dryness of the season, or heat of the sun, cover the surface of the ground two or three inches deep with straw. Indeed, nothing benefits any delicate tree so much, in this climate, as keeping the roots in a uniform temperature, by this coat of straw laid on the surface of the ground.

There are few trees such gross feeders as the grape-vine. Soap suds and liquid manure, applied every week, will give an amount of luxuriance and a weight of fruit, on a single vine, that seem almost incredible. I have seen an Isabella Grape produce 3,000 fine clusters of well ripened fruit in a single season, by the liberal use of manure, and soap suds from the weekly wash.

If you wish to bring fruit-trees into bearing at an early age, pinch off the ends of the shoots now, and again at the end of six weeks. This accumulates the sap, and the surplus becomes fruit buds for the next season.

The secret of neatness and economy in summer culture of a garden, is to *stir the ground often*. It is a trifling task to destroy an acre of weeds, if you take them half an inch high, but a very laborious undertaking to get them subdued, if they once are allowed to make strong roots, and leaves of full size.

AN OLD DIGGER.

WASHINGTON, A HORTICULTURIST.

We are apt, from all that has been published, to look upon Washington as a farmer on a large scale, but, when we approach him nearly, we find him also a gardener and a horticulturist. In reading Irving's new life of the great Statesman, it is difficult not to extract a passage here and there, and to-day we must be indulged in this respect.

In a letter to the Chevalier de Chastellux, for whom he felt an especial regard, he says: "I will only repeat to you the assurances of my friendship, and of the pleasure I shall feel in seeing you in the shade of those trees which my hands have planted; and which, by their rapid growth, at once indicate a knowledge of my declining years, and their disposition to spread their mantles over me before I go hence to return no more." (Vol. iv. p. 455.)

A few pages forward, we come upon the following passages, from the graceful pen of Mr. Irving:—

"He had a congenial correspondent in his quondam brother-soldier, Governor Clinton, of New York, whose spear, like his own, had been turned into a pruning-hook.

"Whenever the season is proper, and an opportunity offers," writes he to the Governor, "I shall be glad to receive the Balsam-trees, or others which you may think curious and exotic with us, as I am endeavoring to improve the grounds about my house in this way." He recommends to the Governor's care certain grape-vines, of the choicest kinds, for the table, which an uncle of the Chevalier de Luzerne had engaged to send from France, and which must be about to arrive at New York. He is literally going to sit under his own vine and his own fig-tree, and devote himself to the quiet pleasures of rural life.

"At the opening of the year 1785, the entries in his diary show him diligently employed in preparations to improve his groves and shrubbery. On the 10th of January, he notes that the white thorn is in full berry; on the 20th, he begins to clear the pine groves of undergrowth.

"In February, he transplants ivy under the walls of the garden, to which it still clings. In March, he is planting hemlock-trees, that most beautiful species of American evergreens, numbers of which had been brought hither from Occoquan. In April, he is sowing holly berries in drills, some adjoining a green-brier hedge on the north side of the garden gate; others in a semicircle on the lawn. Many of the holly bushes thus produced, are still flourishing about the place, in full vigor. He had learned the policy, not sufficiently adopted in our country, of clothing his ornamented grounds as much as possible with evergreens, which resist the rigors of our winter, and keep up a cheering verdure throughout the year. Of the trees fitted for shade in pasture land, he notes the locust, maple, black mulberry, black walnut, black gum, dogwood, and sassafras, none of which, he observes, materially injure the grass beneath them.

"Is, then, for once a soldier's dream realized? Is he in perfect enjoyment of that seclusion from the world and its distractions, which he had so often pictured to himself amid the hardships and turmoils of the camp? Alas, no! The 'post,' that 'herald of a noisy world,' invades his quiet, and loads his table with letters, until correspondence becomes an intolerable burden."

ORANGE RASPBERRY.*

"The Orange Raspberry was first described in the *Horticulturist*, vol. i. p. 178. This Raspberry originated from a seed of Dyack's Seedling—a new crimson variety, imported from England by Mr. Robert Buist, of this city. The seed vegetated in 1844, and the plant fruited in 1845.

"*Size*, large. *Form*, conical, sometimes ovate. *Skin*, orange color, although the maternal parent was a dark crimson variety. *Flavor*, very fine. *Quality*, 'best.' *Leaf*, somewhat irregular in form, usually less pointed than other kinds, and very much corrugated. The plant is of vigorous growth, and has white spines.

"The Orange Raspberry generally, but not invariably, reproduces itself from seed. Occasionally, its seedlings are crimson varieties with red spines."

[To the foregoing description by Dr. Brincklé (who originated this favorite Raspberry), we may add that it continues to grow in public favor, all that can be produced being annually disposed of, and the demand still unsupplied. It has been highly praised at Boston, and, in this region is considered unsurpassed.

Downing used to say, as we came out of Dr. Brincklé's small city plot, that he was doing more for American horticulture than any living man. If he had never produced anything but this Raspberry, his name would have deserved more than a cold statue; but he continues to devote the little leisure afforded by a very extensive practice, to the good of the fruit lovers, and, with a modesty peculiar to real merit, claims nothing from public applause. Long may he live an ornament to his profession, and a benefactor of his race.—Ed.]

NEW PLANTS.

Camellia reticulata, flore pleno. Nat. Ord., *Ternstræmiaceæ*.—*Camellia reticulata*, presumed to be a native of China, appears to have been unknown in Europe till about 1820, and flowered in this country, for the first time, in 1826. The double flowered variety here described by Sir William Hooker, was forwarded to Messrs. Standish and Noble by Mr. Fortune, and though not strictly "double," the flowers have twice as many petals as the ordinary *reticulata*, of a brighter rosy red, firmer texture, and more regularly disposed. They are of a large size, measuring in some cases near six inches across. The foliage is very distinct from that of *C. japonica*, being strongly marked with network, and of fine size. (*Bot. Mag.*, 4976.)

Sonerila elegans. Nat. Ord., *Melastomaceæ*.—From the Neilgherry Hills; introduced by Messrs. Veitch, of Exeter and Chelsea, in whose stove it has recently flowered for the first time. It grows about a foot high, bearing pretty rose-colored blossoms, and fine foliage; the former consist of three petals, and measure about an inch and a quarter across. The stamens, three in number, are very prominent, bright yellow, situated on deep red filaments, as is also the style; the leaves are from four to five inches in length, ovate, marked with ribs or longitudinal nerves, the upper side bright green, and reddish-purple beneath, where the nerves are prominent; the leaf-stalks generally are brown or dull purple. No doubt, this will prove a desirable acquisition to the stove. (*Ibid.*, 4978.)

Hoya grandifolia. Nat. Ord., *Asclepiadaceæ*.—A new and striking species, lately received from the Island of Nœsa Kambangan, to the south of Java. The

* See Frontispiece.

flowers equal in size those of *H. imperialis*, but are of a pure white; the foliage is elliptic, and rather downy.

FAGRÆA MORINDÆFOLIA. Nat. Ord. *Loganiaceæ*.—The flowers of this strikingly handsome new stove plant are trumpet-shaped, of a delicate rosy blush, with a pure white mouth, produced in clusters on long terminal spikes. The foliage also is handsome, resembling that of the Magnolia. We are indebted to Messrs. Rollisson for the introduction of this plant, whose collector detected it in the district of Indramaya, in the western part of the Island of Java. Worthy of a place in every stove.

FAGRÆA PEREGRINA. Nat. Ord. *Loganiaceæ*.—From the same locality as the above. The flowers are, however, white; in other respects, it resembles the foregoing.

VRIESIA SPLENDENS. Nat. Ord. *Bromeliaceæ*.—A plant resembling, in many respects, a *Tillandsia*, but with beautifully variegated foliage. It puts forth a long scarlet spathe, from the colored bracts of which issue the flowers, of a pure white. This is a handsome addition to an interesting tribe of stove plants.

BLANDFORDIA NOBILIS. Nat. Ord. *Liliaceæ*.—Well adapted as this is for greenhouse culture, few persons who have seen it in bloom can fail to admire it; when more generally known, we can readily imagine no greenhouse will be without it. The flowers are liliaceous, bright orange and scarlet, remaining in perfection a long time. The foliage is recurved, and resembles a tuft of grass. In habit it is dwarf, not exceeding twelve or fifteen inches in height, and very free blooming.

BEGONIA ROSACEA. Nat. Ord. *Begoniaceæ*.—The present was introduced by M. Linden, of Brussels, through that indefatigable collector, M. Triana. It is a tuberous-rooted kind, sending up fine, rather downy, radical leaves, and bearing large blossoms, of a pale rose color. Altogether, this variety promises to become a great favorite. It grows in the Western Cordilleras of Columbia.

THE WAY THEY TALK IN CALIFORNIA.

THE American, so lately the possessor of California, seems to have wakened up a new scene in its fine valleys, and already we have records more pleasing and humanizing than those of the gold hunter thirsting after sudden riches. Laying on our table, and inviting perusal, we picked up a month later than it deserved, the *Official Report* of the California State Agricultural Society's Third Annual Fair, Cattle Show, and Industrial Exhibition, held at San José, the last fall. Its publication marks an era in the history of this Union which it is well not to pass over unnoticed. A whole new country, falling from the hands of an inert race into the possession of a new and energetic people, has been transformed; the results of energy are here pointed out in most energetic language, and in a spirit that has already swept the lazy Spaniard from the soil; we hear no more of him than of the red Indian in Pennsylvania.

California possesses many advantages of soil and climate; the cultivators are turning their attention, in some places, to tropical fruits, with eminent success, and soon oranges, &c., will form staples which will prevent the need of importing the great luxuries of Central America. Camellias, in many parts, prosper to perfection. The lemon, lime, the citron, the mango, the sapota, aguacote, or butter-fruit, the pepper-tree, cotton, foreign grape-vines in every variety, the soft-shelled almond, sugar-cane, pomegranate, pine-apples, cotton, the olive, are among the products which do or promise well.

The *Report* mentions so many successful cultivators with their thousands of trees

and vines, that we are obliged to omit the majority. At Marysville, Beach and Shephard have 40,000 peach-trees, 5,000 apple, and 5,000 pear, 3,000 cherry, 2,000 plums, and 40,000 grape-vines, with a large amount of ornamental trees and shrubbery. G. G. Briggs has nearly 200,000 peach, and 20,000 nectarine and apricot-trees. Gen. Sutter, a great collection, and a garden and grounds in excellent taste. In some cases, most of the labor is performed by Indians. The mulberry for the silkworm, is getting into vogue. Mr. Delmas has eighty varieties of grapes, whose thrift and luxuriance afford strong evidence that they could not have found a more genial climate. He has 24,000 grape-vines in all. Mr. Wm. Lent and E. L. Gould, number their fruit-trees by the thousand. Mr. J. Cook grows the Black Morocco Grape in perfection, and all these grapes are of open air culture. Mr. F. G. Appleton has a hundred swarms of bees, doing extremely well. The swarms which Mr. A. had last spring, have produced from two to four swarms each. The honey which has been taken from them is of the finest quality. The experiments which have been thus far made with bees, give every assurance that there is no country in the world superior to California for the honey bee.

Peach-trees budded the previous year on small seedlings, in twelve months were eighteen inches in circumference at six inches above the ground. The fruit of four old pear-trees, grafted with Bartletts eighteen months, had been sold for $160. Mr. Lewellyn has 25,000 apple-trees, and grew three apples upon grafts inserted the previous winter, and only a few inches from the ground. Mr. Daniels' garden is filled with a great variety of choice fruit-trees and plants, which are cultivated with a skill which few possess in a higher degree than Mr. Daniels, who is one of the foremost minds in California. Smith and Winchell have 100,000 apple-trees, of eighty varieties. Messrs. McMurtrie were offered $10,000 for the produce of 100 acres of potatoes. Messrs. Thompson have 18,000 trees, and a vineyard of 8,000 vines—the latter protected from the winds by belts and avenues. Their orchard, which the previous year looked, from a distance like rows of half-grown corn, was the next, a forest in which a man may hide himself. Their plan is to plough deep, dig wide and deep holes, and work the ground from February until July, allowing no grass or weeds to grow among the trees. Major Barbour fully expected to realize from $15,000 to $20,000 from two acres of melons, selling two to three hundred dollars worth a day. Twelve pumpkins raised in Los Angeles, weighed over fifteen hundred pounds. Sausevain Brothers have 60,000 vines, and made two thousand and eighteen gallons of wine, and some brandy; and they have two good wine cellars—one 124 by 15 feet, the other, 90 by 16 feet. California seems destined to stand first among wine producing States. Mr. Cardwell raised a sweet potato weighing twenty-three pounds; they keep growing all the season. Mr. Smith raised a beet measuring three feet six inches in circumference. One tree of California Pear produced, last year, $250. In two small valleys are found one million of grape-vines. And finally, they even turn their steamboat explosions to account, for "on the Colorado, forty miles below Fort Yuma, in August of 1854, a steamer transporting Government stores was blown up; and the next year, in places where the sacks had fallen, a fine growth of barley was found!"

And to conclude: "Of the *Gloria mundi* there were nine specimens, one of which was so enormously large that your Committee feel almost hesitant about giving its weight and measurement. It was seventeen inches in circumference each way, and weighed two pounds three and one-half ounces. It was of the most perfect form, and, in all respects, the most noble specimen of an apple we have ever seen. Had your schedule allowed a premium for the finest specimen, this would certainly have claimed it; but as we were compelled to consider extent of

variety also, we recommend a *special* premium for this of a framed diploma." Grateful Committee, and happy California! We must send out an agent, or go ourselves, for the half does not seem to be generally known. We *are* a wonderful go-ahead people, and it is only surprising we do not yet own Cuba, and the right of way to the placers.

HAVE PLANTS THE POWER TO CREATE?

In a former number of this journal I queried whether Prof. Lindley meant to express it as his opinion that plants sometimes *created* silex and other minerals. The editor answers in the affirmative, at least conjecturally, and adds the instance of cactuses containing oxalate of lime "without a trace of oxalic acid or lime being found in the soil that supported them," and then queries: "Where does our correspondent suppose it came from?"

I am far from being a follower of the ancient Greek philosophy in pronouncing it an absurdity to suppose that something can be created out of nothing when applied to Omnipotence; but that He has endowed brute matter with the power of creation, I am not yet prepared to believe. The explanation of the foregoing instances of *apparent* creation appears to me to be sufficiently simple. Instead of taking for granted that because chemistry has not been able to detect these constituents of the plants in the soil, they do not, therefore, exist in it, I would prefer admitting that chemistry itself is at fault; that its imperfections are known. Is not its impotency manifest in failing to catch and cage the thousand odors which float in the air? What would be its success in attempting to exhibit the hundred-millionth part of a grain of musk? And yet the musk is there. We *know* it to be there.

Chemists have a limit to the power of their reagents. According to Devergie, the extreme limit of the power of ammonio-nitrate of silver in the detection of arsenic is the 400,000th part of a grain. Now let us imagine one-half of this quantity to be removed from the solution, the other half, or 800,000th part of a grain, would remain in the liquid, bidding defiance to all the scrutiny of chemistry.

Not only may plants avail themselves of these (as we say with great latitude) infinitely small particles of matter which no chemical means has ever been able to detect, but we know the extraordinary length to which some of their radical fibres extend. Now, before adopting Prof. Lindley's opinion, I would require the whole of the earth through which every radical fibre of the plant ran to be rigorously examined for the constituents in question; I would also want to be assured that no dust containing these constituents had lodged on any part of the plant during its growth.

These remarks are specially intended to be applied to silex, lime, and other minerals. The presence of oxalic acid and other organic substances, is easily accounted for; the elements out of which they are formed are always at hand, either in the air or the earth.

Leaving, therefore, the act of creation in the hands of Omnipotence, as His prerogative, I prefer limiting the power of plants to the act of aggregation, by which inconceivably minute particles of matter, not rendered cognizable by any chemical skill, are brought together into perceptible masses.

JOHN T. PLUMMER.

We did not suppose our correspondent used the term "create" in its strict and generally received sense; that he had any reference to the "absurdity that something can be created out of nothing;" or intended any allusion "to Omnipotence,"

our journal not being in any sense theological or metaphysical. In a matter of science, we would advise our friend to have no "preferences" for any "theory." Preferences, deductions, inferences, and the like, are the ruin of true science. We want experiment and observation of facts. We would rather publish a page, detailing what our correspondent has witnessed, than fifty to inform us in what he does or does not believe.

Our friend seems to possess some chemical information, and a desire for scientific knowledge. We will propose an experiment for his leisure hours. Let him take a plant—one of the Cactus family will do very well—weigh off a pound of soil, put it in a pot, and set the plant, weighing the latter also. He will find that the Cactus will grow in the soil for many years until the mineral parts of the plant shall far outweigh the difference between the weight of the original pound of soil. If he think the mineral particles are furnished by the water, he can use rain-water, or try distilled water, or other liquids, for experiment. If he find "silex," "lime," or any "other mineral," in the plant which he cannot even "imagine" a trace of in the soil or water, he need not infer, therefore, that the plant has made "something of nothing." He has other alternatives if he desires very much to infer something. He may, for instance, believe that silex, lime, and so on, are not, in reality, the simple and elementary substances chemists, in the present state of their knowledge, suppose them to be. He may, if he choose, fancy that silex is composed of two or more "elements;" that these "elements" are again formed of other elements, and so on *ad infinitum;* and he may after all believe that if the plant did not actually "create silex," it had a peculiar power to unite the "elements."

We speak of "silex," "lime," &c., as something which we well understand, but, though we know how they act, and are acquainted with many of their properties and relations, we know really nothing of what they *are*. Like the term "create," and other theological expressions, they are but words invented to hide our ignorance. Should our correspondent feel disposed to investigate the matter, we shall be pleased to publish his experiments.

UNITED STATES AGRICULTURAL SOCIETY.

ALBANY, May 30, 1857.

IN pursuance of previous appointment, the Executive Committee of the National Society met in this city last evening. The use of the rooms of the New York State Agricultural Society having been kindly tendered, the Board were called to order at half-past 7 P. M. Hon. Marshall P. Wilder, of Massachusetts, President of the Society, assumed the chair. On motion of His Excellency Gov. King, Mr. Olcott, of the Implement Committee, was appointed Secretary of the meeting.

Hon. Frederick Smyth, of New Hampshire, moved that Col. B. P. Johnson, Secretary of the New York Society, be requested to take a seat at the Board as an Honorary Member of the same, and to take part in the deliberations, which was unanimously carried.

The Committee then proceeded to the appointment of the judges upon reapers, mowers, and such other implements as are to be tested at the national trial at Syracuse, in July.

J. Stanton Gould, Esq., of Hudson, N. Y., was unanimously elected Chairman of the jury.

Messrs. Seth Scammon, of Maine; Brooks Shattuck, New Hampshire; Edwin

Hammond, Vermont; Sanford Howard, Massachusetts; Stephen H. Smith, Rhode Island; T. S. Gold, Connecticut; B. B. Kirtland, New York; Geo. Hartshorne, New Jersey; John Jones, Delaware; Francis P. Blair, Indiana; Frederick Watts and J. L. Darlington, Pennsylvania; Gen. J. T. Worthington and Wm. A. Gill, Ohio; Joseph A. Moore and W. L. Underwood, Kentucky; Joseph A. Wright, Indiana; Horace Capron, Illinois; J. C. Holmes, Michigan; Wm. C. Rives, Virginia; H. K. Burgwyn, North Carolina; A. G. Summer, South Carolina; Richard Peters, Georgia; Lewis Worcester, Wisconsin; and Wm. Duane, of Iowa, were, upon motion of Gov. King, appointed as a Board of Judges, for the trial at Syracuse.

B. P. Johnson, Esq., moved that Mr. Joseph E. Holmes, the General Superintendent, be added as a member, *ex officio*, of the Board of Judges, which was carried.

The following resolution, upon motion of Gov. King, and seconded by Hon. Frederick Smyth, was unanimously adopted :—

"*Resolved*, That the proceedings of this meeting be presented to the Executive Committee of the New York State Agricultural Society, at its meeting at Buffalo in June; and that they be respectfully requested to appoint a committee, and to invite the members of the Society to attend the proposed trial of reapers, mowers, &c., under the auspices of the United States Agricultural Society, at Syracuse, in July next."

Judge Gould moved, and it was resolved, that there should be two separate premiums on hay presses—one for stationary and one for portable presses.

The Chair called upon Mr. H. S. Olcott, Secretary of the Committee of Arrangements, to state what had already been done towards completing the preliminaries of the trial. Mr. Olcott stated that he had visited various cities and villages of Western New York, and had received liberal offers of pecuniary assistance and personal co-operation. Although quite equal to it, so far as suitable territory is concerned, none of the points seemed to present the advantages offered by the vicinity of Syracuse. Its position is central in the great agricultural district, and accessible by railroad to all parts of the United States. Its hotel accommodations are ample and excellent, the fields to be cut are in very close proximity to the city, and the citizens have generously offered to charge themselves with any excess of expenses over the receipts from entrances at the trial, should such occur. That locality had therefore been selected for the trial of the present year, and approved of by the Executive Committee. A large number of machines had already been entered, amongst which were nearly all of importance in the country.

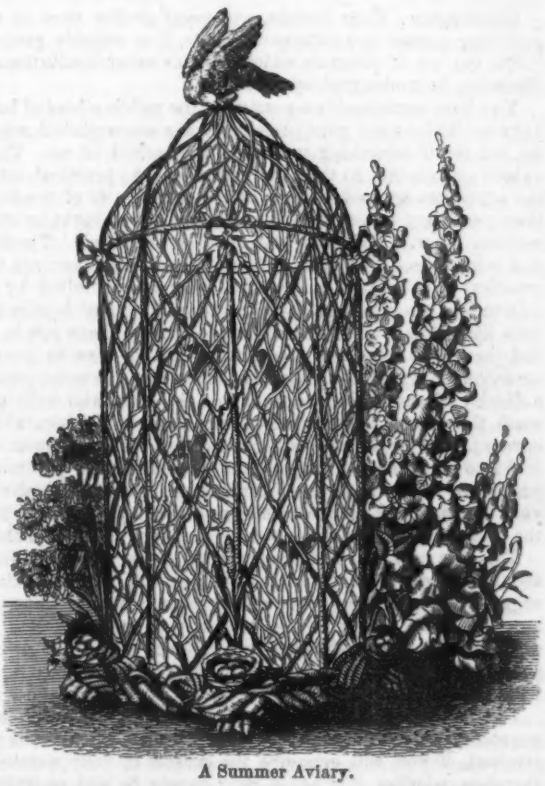
Col. Johnson stated that he had just returned from Western New York, and was of the opinion that the trial could not be undertaken before the 20th July.

It will be seen, by reference to the list of judges, that they are chosen from the most influential gentlemen of each of the States directly interested in the use of the harvest machines. From the national character of the Society and the preparations already completed for making the trial a thorough one, the result will be anxiously awaited by the agricultural public.

Gov. King, who is Chairman of the Executive Committee of the United States Society, will be present and receive distinguished guests from other States. Agricultural discussions will be held in the city of Syracuse on each evening during the trial.

THE AVIARY.

In visiting Baltimore, we more than once came upon beautiful aviaries—a species of ornament not generally introduced in America, and which it is perhaps as well to avoid, and to encourage the "free tenants of the air" around our dwellings. Prisoners of this kind are, however, sought by many; as it has been said, "people *do* and *will* keep them, and it is well to show how birds already confined, may be comparatively reconciled to their imprisonment." This we leave to books which specially treat on the subject, our only object at this time being to give a portrait of a summer aviary, for the embellishment of a lawn. The interlacing branches form the framework, to which is attached, within a fine wire netting, the latter, painted a gay, ochreous yellow, or pale brown. The nests and reeds around the base are happily disposed, and appropriate in character, while the falcon poised above, suggests the security of the sheltered inmates of the cage.



A Summer Aviary.

The design might be worked out in metal or wood; if cast in iron, it would require to be appropriately painted or bronzed; if in wood, the general framework might be formed of well selected tree toppings, with carved nests at the base, on a firm timber or iron foundation. In any case, it would be well to attach near the summit either a wire with rings, or any other simple contrivance for the reception of a light blind or screen, to shade off offensive sunlight, or give shelter during spring or autumnal frosts.

TO THE PRESIDENT AND MEMBERS OF THE —— HORTICULTURAL SOCIETY.

BY A MEMBER.

GENTLEMEN: Your Society, and many similar ones in this country, has been now long enough in existence to make it a suitable period to ask the question: "Has the law of progress which governs other institutions, such as Agricultural Societies, been observed by yours?"

You have awakened in a portion of the public a love of horticulture and flowers; your exhibitions and your premiums have accomplished much; let us look round us, and see if something more is not required of us. The monthly and annual exhibitions amount to this: they stimulate the practical, and delight the amateur; the premiums are looked upon by the receivers as of much more importance than their pecuniary value, and they continue to be sought as evidences that mind has assisted labor. But have you no other mission? These same plants, flowers, and vegetables, which you so happily bring together, are visited and studied by practical men, so that, long before they are exhibited by you, their history and cultivation are understood by the practitioners of horticulture, who find in your halls little that is new or surprising to them. Have you in your power the means and the will to advance a step further, and to give to your friends increased instruction? An exhibition as now managed, is to some persons very little short of a display of personal importance in a few men, who walk the halls as if *they* had *made* the plants, but who are never heard of between whiles for any useful discovery; their importance is exhibited, but their usefulness we have yet to learn.

As to your reports, they consist of naming the plants sent in, and awarding premiums, which, as far as I observe, go generally to the same individuals, and your horticultural proceedings have become about as dry a catalogue as those of the nursery; few read them but the premium takers and their employers.

This was very well and proper in the infancy of your Institution, but *progress* should be your motto; and I trust you will permit a friend of your Society to suggest that something more advanced, and in consonance with the genius of the age, should be struck out as necessary to entire success, and to continue your association in the good graces and opinions of your numerous patrons. The mere showing of so much money as the profits of your career, is just nothing compared with what you might accomplish.

I know that, in all human institutions, jealousies will creep in and disturb the unanimity which is desirable in carrying out all good ends; but unanimity can be attained, if you will convince the reason of your members. I would suggest, therefore, whether it is not in your power to add materially to your usefulness, and will throw out a few hints for reflection?

You have funds, wealthy members, and a large and liberal public to deal with. Suppose you club your means and your thoughts, and create an *Experimental Garden.* Your policy has heretofore been one of successful *co-operation;* continue to co-operate, and extend your usefulness. It may be set down as a fact, that of the thousands who breathe your perfumed atmosphere, under the illumination of gas, a very small number ever enter a greenhouse, or see a large, neat garden; they want to do this, however, and would do it if facilities were given. Private gardens are very well, but the thousands of lovers of flowers do not feel at liberty to open other people's gates; they want to have a place where they can go by right. If your society does not, ere long, provide such a spot, it will be,

probably, provided under other auspices. Of the propriety of this step, many of your former and present members were and are convinced. It might be simple in its arrangements, at first, while it was at the same time eminently neat and clean. Very soon, it would have presented to it the duplicate specimens abounding in fine gardens and conservatories, and an emulation would grow up there as completely as it has grown up at your annual fairs. *An example of* landscape gardening thus created, would not be without its effects on the public mind, to say nothing of its usefulness in promoting a taste for gardening *that would create a fourfold demand for the products of the practical gardener.*

I would ask, again, if there are not topics for public teaching that come under your special mission? Many could be named, but my letter is becoming a long one, and must be concluded. The agricultural societies give exhibitions of farming implements, and are very successful at their fairs—far more so than the horticultural societies, and I must add, however reluctantly, they are more useful. Now there is, among other matters, the construction of heaters for greenhouses and graperies. Have you, or any horticultural society, ever offered a premium for the best and most economical structure of this kind? It is of universal interest to the gardening world, and I should be most happy to hear your awards on this and other new topics.

Having made these suggestions in a spirit of admiration for what you have already accomplished, and in language which, I trust, the Editor of the *Horticulturist* will not condemn, and wishing your particular society every kind of prosperity, I am, Mr. President, and the members of the ——— Horticultural Society, most respectfully,

Your obedient servant, VIATOR.

[Viator has hit upon a most important topic, and, we trust, the particular Societies to which it is addressed, as well as others throughout our broad land, will take it into serious consideration. The Society which first establishes a model garden in this country, will live in history.—ED.]

SALE OF THE SPRINGBROOK (MR. COPE'S) COLLECTION.

A GOODLY company attended this, the largest sale we remember in the neighborhood of Philadelphia, both for extent and variety. The bidding opened quite spiritedly, and we soon found that our distant friends were here, by their proxies, at least, and that Baltimore especially was well represented. Many of the finest of the hardier greenhouse plants were secured for that region, as much as twenty dollars having been given for some of the fine Indian azaleas. Some of the rare plants were sold at a great sacrifice, considering the size of the specimens, though this was by no means universally the case. A fine plant of Gardenia Stanleyana brought $5 25, the Brownea grandiceps brought $40, and two small plants of the Hand-Shaped Lemon, $5 25 and $6 25. A small Lime-tree sold for $5, and some species of Metrosideros at $3 50 to $4. A moderate specimen of Rhododendron Gibsonii, $9, and some large specimens of R. arboreum at prices averaging $25. An European Olive (six feet high), $6, and a sweet one (O. fragrans), same height, $18. Eugenia ugni, the new and rare fruit, for $2; a handsome E. myrtifolia, $10. Cycas revoluta (three feet high), $25. Large Oranges and Lemons, $20 to $42. A very large Strelitzia reginæ, $19. Fine specimens of yellow and white Banksian Roses, $18 and $10. A beautiful specimen of the Camphor-tree, $16. The Camellias

were in too great quantity for the number of buyers, and though the bidding was for a time quite spirited, and they realized fair prices, they eventually fell to a low rate, and, on the whole, went at a great sacrifice. The rarer kinds of Orchidea realized prices varying from $3 to $11. A small specimen of the Elephant's Foot brought $15. A large number of rustic hanging baskets of very simple construction, but filled with beautiful, yet mostly common plants, brought very good prices. This should encourage gardeners to prepare for the demand for these articles, which is increasing every day. The new proprietor (Mr. Stuart), and Mr. Dundas, of Philadelphia, kept the lead in the Orchidea; many fine specimens of these, however, and of the miscellaneous plants, were bought by Mr. Starr, of Camden, N. J. Among the purchasers of the latter description, were Mr. McHenry, of Baltimore, Mr. Shipley, of Wilmington, Del., Mr. T. P. Barton, of Montgomery Place, N. Y., and Gen. George Cadwalader, Mr. Joseph Harrison, and Mr. John Bohlen, of Philadelphia, and Mr. Stuart. Mr. G. W. Carpenter, of Germantown, was a liberal purchaser of Camellias, the largest specimens of which, however, ranging from $19 to $30, were bought by Mr. W. H. Stewart, of Torresdale. Mr. T. Meehan, of Germantown (formerly gardener to Mr. Cope), became the possessor of the Cactuses; this extensive family produced $400.

Thus has fallen one of the finest collections of plants in this country, all of them, with a single exception, being entirely dispersed. We sincerely trust that Mr. Cope will find that health in his native Pennsylvania mountains, which the cares of a long life of successful business activity seemed likely to deprive him of, and in his retirement from the details of his horticultural experiments, we are quite sure he will carry with him the gratitude and esteem of every lover of plants in the Union, for whom, and for whose cause, he has accomplished so very much.

It would be unjust to the merits of Mr. Cope's late gardener (Mr. Jerome Graff), did we fail to notice the excellent order and superior neatness of everything under his charge. It was the theme of general remark, and left a deep impression of Mr. Graff's talents and abilities. Examples of neatness are but too rare in all countries; the opportunity of inspecting what care and attention can effect, has not been lost, we are confident, upon the succession of visitors who were on the ground for the three days of the sale.

The bringing of these extensive conservatories and greenhouses to the hammer, affords several topics of interest to the lover of flowers. It is desirable to know, for instance, the value, tested by a public sale, of such a private collection, so long and carefully kept, and to notice the variation of prices in a succession of years; some improve by age, but others depreciate with increased cultivation.

The entire collection realized $3,500, a sum which must be deemed very satisfactory, showing, as it does, that such an investment is not thrown away, if, indeed, it may not produce much more than the first cost of the plants, and this is certainly not discouraging to the incipient builder of greenhouses.

The Camellias, Cactuses, and Orchids, sold very low as compared with former sales. At the closing, for instance, of the Landreth plants, a Camellia Landrethii brought $45; the same bush, having the advantage of age and increased size, produced but $19. The highest price given for a White was $21; an Imbricata brought $30, and a Myrtifolia $24, while a few White, about eighteen inches high, worked plants, were bid off at twenty-five cents. The truth is, there were so many plants to sell, that purchasers became weary of attendance.

The cheapest plant sold was perhaps the Agave Americana, for $50; three times that sum would have been given for it, but that it is so unwieldy. Smaller ones brought $25.

The sale demonstrates another thing; that still plenty of devotees are pursuing

the subject of plant culture with enthusiasm, and in a liberal and enlightened spirit. There was one circumstance, at the close of the sale, which was touching in the extreme, and, we are sure, to none more so than to Mr. Cope himself. In consequence of Mr. Meehan, who assisted the auctioneer, having left before the close of the sale, it fell to the lot of Mr. C. himself, to cry out the names of the few last specimens. Few but lovers of plants can imagine the feelings of sadness he must have experienced when he handed out the very last, amidst thunder and lightning; it happened to be the "Flower of the Holy Spirit" (Espiritu santo)! Here was a gentleman voluntarily renouncing his pursuits other than business, and with feelings of regret, handing to another's care his last stake, and that was the "Flower of the Holy Spirit." A sadness must come over *his* spirits as he goes through his denuded houses, and sees no more those objects of his daily care, which had for so many years been a source of pleasure to him, and also to his many friends, and always calculated to multiply impressive lessons of the power and munificence of the great Maker of them all. "But sooner or later," he says in a private note to us, "we must resign them, with profound gratitude for the mercies still extended." As a horticulturist, we are fain to consider this dispersion as a calamity, but we pass the collection to new hands with trust and hope. The owner has been most liberal; he has the means and the will to be liberal still. If shown in other ways, it will only be a change from one liberality to another.

THE HOLLY.

Many gardeners having turned their attention to raising the Holly of late, the following instructions regarding the proper treatment may be acceptable. We have no native evergreen to compare with this tree. It is difficult to raise and to remove, and is of rather slow growth, but this should be no discouragement; every one should possess the Holly.

First of all, gather the seeds just before Christmas. If you have more than a bushel of berries, mix with them an equal quantity of sand, and bury them, or cover them in a heap as you would a heap of potatoes; if less than a bushel, put them in a box with sand, and bury the box, and at the end of the following October sow them, sand and all, and cover them half an inch deep. The best soil to sow them in, is a piece of fresh ground which was trenched in the spring, and planted with potatoes. Next spring, or the following, the seedlings will appear, and, to do them justice, they should be watered, in dry weather, during the first two summers. At the end of two years (in October, or earlier), transplant them into a newly trenched bed or piece of ground, at six inches apart, water as before, and, at the end of four years, transplant them again, eighteen inches apart, in rows, and six inches leaf from leaf in the row, and water at least next summer. At the end of six years, take them all up, and *trim their roots*. Here is the turning point and grand secret of getting Holly fences. The plants, being now root pruned, must have lots of rotten dung, as for an onion bed, in their new quarters, and room enough to leave twelve inches clear from leaf to leaf between the rows, and six or eight inches from leaf to leaf in the row. Here let them remain three years, when they are ready to plant out in a hedge; but some prefer having the spade "run down" on each side of the rows, and leaving them another season. The site of the hedge should be trenched four feet wide and three or four feet deep the winter before; then planted with potatoes; and, as soon as the potatoes are up, down with the Hollies. If you purchase, buy four-year seedlings, and do the rest at home.

HOW GREATLY TO INCREASE GRAPE-VINES FROM LATERALS.

At a late meeting of the London Horticultural Society, a Mr. Fleming produced some cuttings of vines, which, in five days, had formed roots as much as three inches long, and which had been prepared by a new process. The usual methods of multiplying the vines are by layers, or cuttings, or eyes, each having so limited an application, that much time must elapse before any considerable number of plants of a new variety can be propagated. The method pursued by Mr. Fleming, is *to take advantage of the laterals* (which every vine may be forced to produce in abundance), to separate those laterals close to the old wood as soon as they have three or four leaves, and to strike them in silver sand in the usual way.

If a vine, says an informant, is so closely covered with glass that the air around it is always saturated with humidity, and if it is then exposed to the sun (the air being always warm) it breaks in the usual way; but, in a few days, each shoot will produce a lateral from the bottom of every leaf; these laterals, after growing to a certain length, will themselves break into fresh laterals, and so growth goes on. Thus, a vine in such a situation, having fifty eyes, will form fifty new shoots; these shoots, after a time, will break into at least ten laterals, and each lateral may be expected to produce half a dozen other laterals of a second order. This being so, a single vine with fifty eyes, may be compelled to produce materials for three thousand new plants, instead of its power of multiplication being limited to the original fifty eyes, as is the case under ordinary circumstances.

The process is in most respects similar to that practised in Messrs. Weeks' nursery, where vines of the old and new varieties are grown extensively, and Mr. Grüneberg, one of the partners, has introduced a plan by which the new varieties are increased with great rapidity, as follows: As soon as they have pushed a shoot a foot or fifteen inches long, it is cut back to near the base, and the top is made into cuttings, every one of which strikes, and thus a great many plants of any particular kind are obtained in one season. The chief point is, to take care to start them sufficiently early to get the young wood strong and well ripened by the autumn.

In both cases, young, green wood is employed; but in the last mentioned place, a shoot is itself divided into cuttings, each having at least a couple of eyes; and there the operation ends. So that, while in the case above supposed there is a possibility of getting three thousand cuttings in a season by the use of laterals, we could hardly expect more than three hundred by merely dividing the first strong shoots into cuttings. We know not whether these methods are absolutely new; probably not, for they are such as theory would certainly suggest if brought to bear upon the subject. But they are so far novel, that they have not been generally employed by gardeners.

We say that they are such as theory would suggest. Nothing is more certain than that the greater and more active the vitality of a cutting, the more freely will it become a new individual by the emission of roots. It is equally certain that vitality is most active in the young shoots of plants, turgid with organizable matter, and abounding in nitrogenous principles. Therefore it is a general axiom in theory, that a young cutting will strike more quickly than an old one; that green wood will root more readily than ripe wood. Propagation by the eyes of the vine is indeed, in some degree, an evidence of this fact. But ripe or half-ripe

wood, though least active, and charged in the smallest degree with organizable and nitrogenous matters, is usually preferred, and for the following reason: It is indispensable that some time should elapse between planting a cutting and its emission of roots, during which time its vitality must be maintained by artificial means. In many plants this is an operation so difficult or uncertain, that vitality departs before roots can come, and thus the cutting dies. Wherefore nearly ripe or fully ripe wood is often preferred, because its vitality, although comparatively low, is more easily supported in the absence of roots than if it were younger and more active. Whether or not, therefore, it is desirable to use green, half-ripe, or fully ripe wood for propagation, can only be determined experimentally. In many cases it has been thus determined, and we find one year old wood used for some things, two year old wood for others (as oaks and beeches when grafted), while in some cases the quite green wood is universally employed; to which latter class the vine may be now referred.

But is this a good mode of propagating the vine as well as an easy? That is to say, will the young plants obtained from green wood be as healthy as if from ripe wood? We understand that the vines obtained by Mr. Fleming's process are weakly the first year, but become strong and healthy in the second, if allowed to break in a cool house. Probably he has never pushed the process to its extreme limits by availing himself of the third generation of laterals. Let us, however, suppose he did; would the consequences be injurious. We cannot but think that they might be; for the laterals of the third generation, though active enough at first, would be likely to indicate symptoms of inherent, and possibly incurable, debility, as has occurred to the dahlia in cases of the over multiplication of that plant.

This is certain, that if vines are multiplied by the method above described, and are struck comparatively late in the season, it will be more difficult for them to ripen their wood than when coming from eyes in the usual way. This is, however, mere speculation, and we should be glad to hear that our anticipations are unfounded.

RED SPIDER.

The little insect known too well to gardeners under the name of red spider, has obtained its popular name from the delicate web which it spins on the leaves which it affects, either presenting mere scattered threads or a distinct sac, though it is in reality a mite, and not a spider. It is just visible to the naked eye, being distinguished by its reddish hue, which, however, varies with age and other circumstances, unless more than one species is included under the name, and its active habits. The leaves which it attacks have a peculiar mottled appearance, from the exhaustion of the chlorophylle, which at once betrays its presence. It is not confined to stoves, but is often quite as prevalent upon walls, or even in the open ground, occasionally destroying whole branches of the trees which it affects. It is especially abundant in dry weather, and in stoves in which the air does not contain a proper degree of moisture, and is far more easily prevented than cured. There are, indeed, remedies which are at once fatal, as the fumes of burning sulphur; but these, unfortunately, if strong enough to destroy the insect, often destroy the plant at the same time; or even if the plant does not suffer, the eggs are not affected, and in a few days the plague is as bad as ever. If the fumes of sulphur are used, it is quite astonishing to see the myriads which sometimes collect at the tips of decayed leafstalks, or on the leaves themselves, apparently not at all the worse for the discipline, if the fumes are not extremely strong. The proper course,

however, is not to *burn* the sulphur, as is practised by many gardeners with certain destruction to their plants, but simply to volatilize it, and if this is done in a damp atmosphere, the red spider cannot stand against it. It is difficult, however, to regulate matters nicely; the best remedy, therefore, is prevention rather than cure. Unfortunately, however, melons (which are peculiarly liable to be affected), require, in certain stages of growth, a dry atmosphere, which favors the development of the red spider, while it prevents or checks canker and mould. Constant syringing appears to be the most effectual means to this end, but as in other cases of disease, the very first symptom should be carefully regarded, and the remedy at once employed. When the leaves have once become mottled, they are not in a fit condition to perform their especial functions properly, and even though the syringing should be effectual in preventing any further mischief, it cannot replace the unhealthy with healthy tissue. Other remedies have been proposed, as strong tobacco smoke, turpentine, bruised laurel leaves, sublimed sulphur, a solution of soft soap; and favorable reports have from time to time been given of all; but, on the contrary, there have been as many records of failure, so that implicit confidence cannot be placed in any one of them.

DESTRUCTION OF ANTS.—To an infusion of one ounce and a half of sliced quasia woods, or shavings, in one quart of boiling water, add, when cold, about half a pound of honey or molasses. Place small flat saucers, half filled with the sweetened mixture, with short straws floated upon it, in different parts of the garden or conservatory, under shelter from the rain, and in such position as may facilitate the approach of the ants. These little creatures will soon discover the traps, the contents of which they greedily devour, despite the intense bitterness. The destructive qualities may be increased by the addition of about half an ounce of ferrocyanate of potash. Bee-keepers alone need be cautious of their stocks, for it is equally fatal to this kindred tribe of useful insects; but the danger may be avoided by a gauze or net covering to each saucer, with meshes wide enough to admit the intended victims, or a close-sieve may be used to cover the traps. To prevent them climbing trees, nothing is better than a ring of gas tar round the stem, which effectually prevents their mounting.

TO DESTROY WORMS ON GRASS LAWNS, ETC.—Of the many methods which have been recommended for destroying worms, corrosive sublimate is the most efficacious. By means of it, may be cleared a piece of grass from which it seemed almost impossible to eradicate the worms, the surface of it being always covered with casts, and looked most untidy; but for eighteen months after this was applied, scarcely a single cast was to be seen. Use the solution of the corrosive sublimate of the strength of one ounce to forty gallons of water, having dissolved the sublimate first in a little hot water, and thoroughly mixed it. The requisite quantity of each being prepared, the whole should be well stirred together, and ommencing at one end of the lawn with the watering-pot, without a rose, let the surface be entirely flooded; if any part of the ground is missed, the grass will soon be as bad as ever with the worm-casts. Directly after the solution has been applied, the worms will make their appearance, which have always picked up. The dose may be made sufficiently strong to kill them on the surface, or even in the ground; but this is attended with danger to the grass, particularly on light soils. Picking them up is the best. If possible, the ground should be gone over a second time, after an interval of three or four days. Attention should also be paid to the state of the ground, which should neither be soaked with rain nor parched up with drought, but in a middle state. Great care is at all times necessary in using this deadly poison. It is also useful in destroying slugs, etc.

REVIEW.

Hooper's Western Fruit Book. By E. J. HOOPER, of Cincinnati. From the press of Moore, Wilstach, Keys & Co., 1857.

As a concise descriptive catalogue of fruits, the plan of this work is adapted to the purpose for which it was designed. Without entering into the minute and elaborate descriptions which enable the pomologist to identify varieties, it gives such prominent characteristics of each kind as will answer ordinary practical purposes of the cultivator.

We regret that the author did not designate the quality of each fruit by the epithets recommended by the American Pomological Society—"good," "very good," "best." This, however, will probably be done in a subsequent edition, at which time, no doubt, a careful revision will be made, and sundry errors (some of them typographical) contained in the present edition will be corrected. For instance, the Sheldon Pear is not a foreign variety, but a native of New York; Beurré Preble is stated (at page 125) to be "not very good," and (at page 130) as being "worthy;" Doyenné du Comice is printed "Doyenné de Cornice;" "Triomphe de Jordoigne" should be Triomphe de Jodoigne; "Carnel's Favorite" should be Cornell's Favorite; the "Bannet" Raspberry should be Barnet; the Cushing Raspberry is not of a "cream color," nor is the French; both are crimson varieties.

Welcoming as we do every attempt to impart reliable information on the topics treated in this work, we yet have a duty to perform to our readers; under this impression, we must be permitted to point out a few peculiarities of the author which it would have been well if he had avoided. Book making is evidently a new business to Mr. Hooper, and such being the case, he will probably not take amiss a few remarks that occur after an examination of his work.

However excellent the plan with which the writer set out, he has fallen into a rambling and confused mode of treating his subject which is anything but satisfactory. As an instance (at pages 160–61), in describing the "Glout Morceau" Pear, we have an account of the "Winter Nelis" at more extent than the pear under consideration; on turning to Winter Nelis, very little is said about it, and there being no index, a reader anxious to know all about the latter, will have to search a long time to find what he wants.

Under the head of "Kirtland Pear," we are treated to the following rambling "remarks:"—

"Raised by Dr. Kirtland, of Cleveland, Ohio, a good pomologist, a man of very scientific attainments, and of versatile talents. *Texture*, fine, melting, juicy, and rich. *Flavor*, aromatic, sweet, and in the highest degree delicious. *Tree*, hardy and productive. Obtained from the seed of Seckel. Dr. Kirtland has been most successful in raising very valuable and delicious cherries from the seed (which will be noticed in their proper place), as well as some other fine seedling fruits. He is always indefatigable in the pursuits of horticulture and science."

Indeed, Mr. Hooper luxuriates on the Pear topic, and crowds irrelevant subjects under the descriptions, which should have been placed in a separate chapter. As an example, take the following, under the head of Seckel Pear:—

"'Best grafted on the apple (a singularity), reserving part of the apple branches, to give large size and flavor.' So says Mr. Gabriel Sleath, an experienced horticulturist and culti-

vator, and one of the pioneers of Cincinnati, on flowers and fruit, with Jas. Howarth, and, to be in good company, may I be permitted to add the author here?"

In naming the "Doyenné Gris d'Hiver Nouveau," the short description is eked out as follows. As it compliments our own labors, we ought to be satisfied, but why we are introduced in this particular place puzzles us a little; and we again have to regret that there is no index to point out to admiring thousands this brilliant gossip about the "Winter Gray Doyenné," which reads thus:—

"The Gray Doyenné is described, by Col. Wilder, in the *Horticulturist*, first established by Downing, and which leading work has also been well conducted ever since, by good theoretical as well as eminently practical men. It is now in good hands, and has, as it deserves, a large circulation, and still increasing, as may be expected from the gloriously growing interest in horticulture and agriculture in all parts of the Union. Men are beginning to get their eyes open, at length, to their highest welfare, happiness, and wealth. Fruit should comprise one-third of the human diet, at least."

Here we have, in half a page of "remarks" on the Gray Doyenné, Colonel Wilder, the *Horticulturist*, Downing, Barry, the present conductor, large circulation, horticulture, agriculture in all parts of the Union, men with their eyes getting open, human diet, good theoretical as well as practical men, welfare, happiness, and wealth, &c. &c. We ask Mr. Hooper if this is following good models of book making? and we ask him to place such remarks, in the future editions, in a preface, or, in fact, anywhere but in their present places. Another objection to its taking a position as a *Western* Fruit Book, will be found in its extreme local character. Everything is tested by "Cincinnati" experience; opinions are given as those of one section of Ohio only, and we are left to conjecture as to what will suit other "Western States." The time for all the rest of the great West, cannot be regulated by a Cincinnati clock. Mr. Hooper will do well to remember these particulars, which we mention in all charity, and as in duty bound. We have seen but one copy of the work, and this was accidentally picked up on the shelves of a public library, and sent out to us.

The few fruit illustrations are very creditable; the portraits of the Cincinnati *savans* we are less able to recognize. Surely, the expression of Mr. Longworth's face has been altered in the engraving process; Mr. Ernst we should not be able to distinguish; Dr. Warder looks well and young, and as active as ever. The fruits on the table around which those gentlemen are grouped, are more natural, but, as it was not the season, probably, there is an omission of the strawberry, pistillate, and staminate, for which this part of our parish is so famous, and where, while we write, this pleasant febrifuge is doubtless in its usual abundance.

Pickling Walnuts.—A lady of great experience in such matters, gives the following receipt for *pickling walnuts:* "Gather them dry, prick them through with a large pin two or three times, put them into salt and water, shift them every three days for a fortnight, put them into a sieve, and let them stand a day in the air, and then put them into an earthen jar. Boil as much vinegar as will cover them well, pour it boiling hot over them, let them stand three days, then put them into a sieve, and let them stand in the air another day; then take to every quart of fresh vinegar that may be wanted, half an ounce of black mustard seed, half an ounce of horseradish cut into slices, a quarter of an ounce of long pepper, three cloves of garlic, a dozen cloves, four or five pieces of raw ginger, and a few eschalots; boil these ten minutes, and pour it boiling hot over your walnuts; let it stand a fortnight, then put them into bottles corked close, and cover the corks with resin. They will keep for years."

EDITORS TABLE.

THE WEATHER.—On this fruitful topic, we may say, that up to June 22, we have had, in this region, a truly *rainy season*, such as many believe exists in the tropics. There have fallen, up to the above date, in the past month, 7.01 inches of water; and, in May, we had 6.43 inches, making nearly thirteen and a half inches in two months—notwithstanding which, the prospect of fruit continues good. Strawberries have been abundant and dear. Cherries were injured with the wet, and rotted on the trees. The summer and autumn fruits promise well.

In May, 1855, rain fell to the depth of 6.53 inches, and in June, of the same year, 8.07; in July, 6.50. In 1855, this great amount of rain was followed by an arid summer, which it may be well to provide for the coming season.

TRIAL OF REAPERS, MOWERS, ETC.—The first national field trial of reapers, mowers, &c., by the United States Agricultural Society, will come off at Syracuse, New York, the present month, and is looked forward to with great interest by farmers and inventors. The exact date is not ascertained when we write, but July 6th to the 13th is named; the precise time was to be fixed as soon as it could be ascertained when the crops would be ready for the harvest. We since learn it is the 13th.

THE FIFTH ANNUAL FAIR of the United States Agricultural Society will be held at Louisville, Ky., during the fall, and will embrace "a national trial, in the field, of agricultural implements and machinery."

FRUIT-TREES.—The New York *Journal of Commerce* says: "The importations of foreign fruit-trees and seeds, this spring, now nearly over, are estimated to have been at least fifty per cent. in excess of those of any former year; and this branch of horticulture is fast acquiring importance. The destruction of trees by the severity of the two last winters, and the rapid settlement of Western lands, but more than all, the encouragement to the culture of domestic fruit afforded by the formation of numerous agricultural societies throughout the country, have given an impetus to this business which is quite unprecedented. Trees are imported in bales and cases, chiefly from France, England, and Scotland; and seeds are invoiced by the ton."

THE LATE WINTER, ETC.—A valued correspondent says: "I would advise you to repeat your trip to Cuba next fall, to get away from our Nova Zembla winter. The last exceeded all in my memory. It has actually killed several of the oldest paper-mulberries in Newark, N. J., streets, and at Astoria, N. Y., I observed no indication of life in two venerable catalpas which must have braved thirty or forty winters, facing N. N. W.

"My last advertisement *paid* well, for many orders referred to the '*Horticulturist* for April.'"

Gossip.—The foreign papers say that Messrs. Schroeder and Dusch make it apparent that meat may be kept fresh for a long time in filtered air. The filtration is effected by very simple means, namely: panels of cotton wadding to the safe or closet in which the meat is hung. Butchers' meat has risen to so extremely high a price in Paris, that there has been some talk of the Imperial Government undertaking to sell preserved fresh meat at a reasonable rate.——A new yam, as it is called, has been sent from Mexico to the Académie at Paris. It is of prodigious size (two mètres fifty-one centimètres long, eighty-nine centimètres circumference), and weighs eighty-six kilogrammes. Some of the academicians say it is rather a rhizome than a root; not a yam, but a hitherto undetermined vegetable (perhaps a *dioscorea*)—a question to be settled by botanists. In Mexico, as we are informed, it is not at all uncommon for the roots to grow to a length of four mètres. They are a palatable article of food, notwithstanding their size.——Macbride's flax scutching machine cleans more than five hundred pounds of fibre in ten hours, and when driven to the utmost, will turn out nine hundred pounds in the same space of time. Compared with hand-labor, there is a gain of more than half in favor of the machine—at least, so say the initiated.——Mr. R. Errington, a name well known to gardeners, says, in a late article on peach pruning, "there is no occasion for much fuss about it. Trees have been repeatedly seen bearing better crops, badly pruned, than those which had received the most scientific knifing. This, however, does not prove that pruning is quite immaterial, but that it is not the 'keystone' of the arch. Young peach-trees, as soon as they have grown one year from the bud, are termed 'maidens.' They have one straight shoot, with generally a few side-spray. Below this latter are generally four or five dominant side-buds which have never sprouted, and the pruning knife is generally entered immediately above these. In the second year, the tree sprouts from three to five shoots, according to its power, and these are pruned back in the rest season for a double reason—to remove ill-ripened portions, and to cause the tree to branch more, in order to cover the wall. Henceforth, the thing gradually assumes the character of a fruit question rather than one about wood, and the business is, that whilst every regard is paid to the bearing wood, attention is also given to a proper succession of wood shoots."——A letter writer, addressing the U. S. Patent Office, from Kerr County, Texas, expresses surprise that that department has not noticed the pecan-nut, which grows abundantly in Texas. About 200,000 bushels of the nut have been exported from that State to Europe and elsewhere, producing $400,000. One tree will often produce from fifteen to twenty bushels, worth from $30 to $40.——A pretty philosophical toy is exhibited in Philadelphia. It is a toy balloon, and is a Paris invention, made of India-rubber, filled with common burning gas. The levity of the gas carries it up to the top of the window where it is exhibited, when it rebounds and descends again, keeping up this motion continually. The invention is better than a kite, for it depends upon no current of air to make it ascend, and it can be fastened by a string to a child's hand, or the button-hole of his jacket, and be made to follow all his movements.——The California Agricultural Society speaks of a remarkable case of success in the product of the bee: Mr. Briggs, of San José, brought out with him, the last year, from the States, a large swarm of bees; from this one swarm, *eight swarms* were hived the first season. There is no parallel case to such a product on record, and the same prolific character is manifest in all natural history there as well as in the products of farm, grain field, and orchard.——The Committee who report to the Society, went to see a Spanish Don, and there they found the following matter of interest to relate: "A two year old grizzly bear, having been caught in the barley-field the night previous to our arrival, the natives belonging to the establishment amused themselves, just after we came up, by tying the fore-leg of a bullock to the hind-leg of the bear. After sundry tossings and huggings, while we were faring sumptuously at the table of the Don, his bearship, we were informed, took just *one horn* too much, and died from the effect of an extemporary

bowel complaint."——The application of gas to cooking has been made with success in this country, and for heating small greenhouses, it is believed to be valuable. In England, neat library tables are made with hot-water pipes beneath, which add greatly to the comfort of a room; they may be heated from the kitchen fire.——A border of high or standard roses is improved by planting among the stems mahonias; the bareness of the border and lower parts of the stems, is thus taken off, as it is thus effectually filled up with foliage.——The Emperor fountain at Chatsworth is of such force, that it is calculated the water escapes at the rate of a hundred miles per minute, rising to the height of two hundred and sixty-seven feet.——During inclement spring weather, many stocks of bees in common hives require feeding more abundantly than can be accomplished by pipes of elder and other primitive contrivances. A good plan to feed stocks in the common bell-shaped hives, is to cut a small hole in the top, drive three flat-headed nails around it, standing up half an inch; on these lay a piece of empty comb, the upper cells of which can be filled with syrup, and the whole covered closely with an empty hive. The bees will readily take down a pound of syrup a day. When not required, a cork secures the hole.——The rose Isabella Gray, from this country, has become a great favorite abroad. It is tea scented, and they say of it, "a real yellow rose at last."——At a late London exhibition, a gardener exhibited a fruiting branch of the Royal George Peach, from a tree fifty years old. At the same table were two glazed plates of singularly beautiful *anatomized leaves*, prepared and painted on by Lady Dorothy Nevil. This is a new process, by which the web between the veins is not destroyed, but looks as if the leaves were first divested of the outer skin or covering, and the rest bleached white like a piece of bladder, with the mid-ribs and all the veins as distinct as if the web was destroyed. On these bleached leaves her ladyship painted various beautiful designs and writings, which were much admired.——If you have not a blind to protect your camellias from the sun, melt some jelly *size*, with scarcely any water (say half a gallon of it), and use, say half a pint of water. If you have not jelly *size*, use glue or other size, so as to make a strong solution. Into that quantity, place about the size of a walnut of whitening, half a drachm glass of turpentine, and as much boiled linseed oil. Stir it all well together, and, when very hot, draw it over the glass when dry, and, if possible, when the sun is shining. This, put on outside, will remain until the heavy rains of autumn help to loosen it. Placed inside, it will remain longer. If daubed with a dry brush as put on, it will look like rough glass. A little soda in water will soon remove it when that is necessary.——At the Duke of Devonshire's garden is an extensive peach-house, almost wholly filled by one tree, from seventy to seventy-five feet in the spread of its branches, and from seventeen to twenty feet in height; and it may, indeed, be termed the perfection of a peach-tree, for its size is only equalled by the quantity of fruit it produces—from seventy to eighty dozen annually.——Prof. Henslow's *Dictionary of Botanic Terms*, commenced several years since in Maund's *Botanist and Botanic Garden* (but, we believe, not completed there), has now appeared in a separate volume, published by Groombridge, London.——The nursery established in Algeria by the French Government, at the instance of the Société d'Acclimation, prospers with some of its productions. Three plants of Caoutchouc (*Ficus elastica*), brought from Coromandel twelve years ago, are now "nearly ten mètres high, and eighty centimètres in circumference at one mètre from the ground, and the branches, extending horizontally, cover a great space." These trees were tapped in 1855, in order that specimens of Algerine Caoutchouc might appear in the Paris Exhibition. The *Croton sebiferum* (from China) is also successful, having begun to yield fruit, and the sugar-sorgho. "This latter plant," says M. Hardy, the director, "secretes on the surface of its stalks, at full maturity, a white resinous powder, from which candles could be made. A hectare of sorgho gives more than a hundred kilogrammes of this substance." As yet, the attempts made to acclimatize wax and tallow-bearing plants, the gutta percha and Peru-

vian bark, have failed.——There is a project for starting a manufactory of perfumes in Algeria, originating in M. Millon's ingenious researches. In a description of his process, we are told that, "to avoid the alterations which flowers undergo on drying or distillation, he separates the aromatic part by dissolving it in a very volatile liquid, which is afterwards expelled by distillation. With such a solvent, the distillation is attended by no inconvenience, for it may be performed at a low temperature." The best solvents are ether and sulphuret of carbon. "Properly managed, there is very little loss of the solvent, and the distillation is rapidly performed, much more rapidly, and with a larger quantity of leaves and flowers, than by the ordinary method. But the gathering of the flowers should be done at the proper time of day for each flower. Thus, the carnation gives off its perfume after an exposure of two or three hours to the sun. Roses, on the contrary, should be gathered in the morning as soon as well open; the jasmine before sunrise." By this process, the perfume becomes isolated, and may be kept exposed to the air for years without alteration. The project becomes important by the side of the fact, that the annual value of the perfumes exported from France is 30,000,000 francs.——The Institute of British Architects announce, as subjects for future prizes: "The Application of Wrought Iron to Structural Purposes;" "The Influence of Local Materials on English Architecture;" and they promise a tangible honor "for the best design in not less than five drawings, for a marine sanitarium, or building for the temporary residence of a limited number of convalescents belonging to the middle and upper classes of society." The Institute do not confine themselves to the merely useful, as Mr. Papworth's paper lately read before them, on "Beauty in Architecture and its Alliance with the Past," abundantly testifies.——Certain agricultural chemists in France have discovered that pounded glass is profitable in cultivation of the land; and M. Paul Thénard is making experiments, on a great scale, with the pulverized slag of blast furnaces. This slag he believes to be equivalent to feldspathic rock, and eminently attackable by the agents present in the soil and atmosphere; for the constituents are silicates, anhydrous potash, and iron. He has set up the necessary machinery for pulverizing the stubborn lumps, and promises to publish his results as soon as they are justified by practice. Should they confirm the results obtained on a smaller scale, what an opening there will be for a new branch of industry, in the preparation of a fertilizer from heaps of refuse at present regarded as a nuisance!——Meteoric stones lead to the strong inference that the materials of the moon are exact representatives of our system; for up to the present time, no element has been found in a meteorite that has not its counterpart on the earth; we certainly have the proof, at least as far as we may ever expect to get it, that some materials of other portions of the universe are identical with those of our earth.——*Friga Domo* is the name of a canvas sold in England, prepared from hair and wool—a perfect non-conductor of heat and cold, keeping a fixed temperature. It is adapted to preserving fruits and flowers from the scorching rays of the sun, from wind, from attacks of insects, and from morning frost. It is two yards wide, and may be had of any required length, at about thirty-seven cents per yard run. It would be well for some of our seed-store men to introduce it.——Prof. George Wilson, of Edinburgh, writing on the physical sciences, happily remarks: "A cattle dealer will give you one calf which shall certainly, in course of time, prove a bountiful yielder of milk and cream; another, which shall as certainly be a fatted ox when three years old; a third, which shall by-and-by be a match for a horse at the plough. The Yorkshire broadcloth makers choose by preference the long-stapled wool of sheep fed plentifully upon artificial grasses, turnips, and the like. The Welsh blanket makers, on the other hand, prefer the shorter wool of sheep cropping the natural grass of the hills; whilst the Scotch tartan shawl weavers work only with Australian or Saxon wools. In like manner, the comb-makers will tell you that the farmers are injuring them, by multiplying breeds of cattle which quickly fatten, and are, in consequence, killed before their horns are well grown;

and those same industrialists will curiously distinguish between the tortoise-shell from one region of the sea and that from another. I should never end, were I to pursue this matter." Let those illustrations suffice to show that living organisms are not only industrialists like ourselves, and, in many cases, more skilful artists, but are also machines and apparatus which, within certain wide limits, we can wield at will.

Grouping and Blending.—"There are few things," says a recent writer, "requiring more careful consideration, prudent forethought, and a clearer perception of ultimate results, and the grouping and blending of these with surrounding circumstances, than the fixing on sites for gardens, mansions, and ornamental buildings. For want of a thorough appreciation even of the minutiæ of detail, the greatest artists have sometimes committed great errors, so great that the humblest man, without a hundredth part of their genius and intelligence, cannot but perceive them. Hence we find gardens that cannot be supplied with water but at an expense that sets adrift all the maxims of a severe economy; and others, again, from which early productions are expected, inclining to the north, and in a position where they are sure to be visited by early autumn and late spring frosts. Hence, again, we find mansions at times from which the finest views of the surrounding scenery are excluded, as if on purpose they should merely be seen from some sequestered corner of the demesne; or we find a beautiful lake, formed at great expense, but holding such a relative position to the mansion that the residents there must ascend pretty well to the roof before they are cheered with the expanse of its calm or rippling waters."

Fuchsia Treatment in Autumn.—Place your fuchsias where they will be safe from frost, cutting off part of the weaker points of shoots, and keeping the roots dryish. About March, or the end of February, prune back the shoots to short or long spurs, according as you want your plants to grow upright in the bush, or wide at the bottom, in the pyramidal form. If naked at bottom, unless you wish to make standards, you had better cut down altogether, and get a fresh, strong shoot to start afresh with. Water a few days after pruning. When the young shoots are coming away freely, and from one to several inches in length, repot, by getting rid of a good deal of the old soil, and replace in clean, similar-sized pots. If the plants are young, they will want larger pots in about six weeks. Rich soil and manure-waterings at times will then give you abundance of fine flowers.

Answers to Correspondents. Seedling Evergreens.—"Inquirer," by reference to McMahon's *Gardening*, will find his advice differs from many others; but there can be little doubt he is right. He says: "The true method of treating seedling pines and firs, is frequently during the summer months, as they advance in growth, to sift some loose earth over them in the seed beds till it comes up to the seed leaves, by which the stems are protected, shortened without disturbing their roots or checking their growth; it tends, also, to keep the moisture confined to the earth, by preventing its too sudden evaporation, and the loose sifted mould attracts the dews and imbibes the rains, when such fall, by which means the plants are kept cool, moist, and in a constant growing state." By this treatment, much better plants may be grown than by removing them from the seed beds too soon.

Trimming Box-Edgings.—June is a proper time to trim box-edgings, but early in July will still answer. Take advantage of the first moist weather that occurs after the middle of June; for if done in dry or parching weather, they are apt to turn foxy, and thus lose much of their beauty. Neat cutting, even at top and on both sides, and two or three inches high, and two broad, is sufficient. Higher than this and broader, they assume a clumsy appearance, and deprive the beds and borders of that apparent roundness so necessary to set them

off to advantage. Clip again early in September, as before, in moist weather, and the plants will put on a fresh appearance before winter.

Strawberries.—I have always regarded the distinction of the sexual character of the strawberry as being important in selecting plants for a successful bearing plantation. Wishing to plant, I went to the Cliffton Nurseries, near Cincinnati, and procured of one of the proprietors a small lot of plants, consisting of McAvoy's Superior, Burr's New Pine, and Large Early Scarlet. At another place I procured Hovey's Seedling. I also visited Mr. Longworth's garden, where I received some of Longworth's Prolific. Now, there are five kinds, and how did they turn out? I planted them in separate rows. Hovey's Seedling and McAvoy's Superior, both bore pistillate flowers, as I expected. The row that was to be Large Early Scarlet, instead of bearing staminate, also bore pistillate flowers. The row of Burr's New Pine bore part pistillate and part staminate, and, the strangest of all, Longworth's Prolific (hermaphrodite) bore all pistillate flowers. Now, we do not like to accuse nurserymen who profess to do business on correct principles of dishonesty or stupidity. But Mr. Longworth's own favorite Hermaphrodite—what shall we say? Has it changed sexual character, or is there a mistake in his own garden that his head gardener is not aware of. Who can explain?

In forcing the strawberry under glass (there being no insects to carry the pollen from the staminate plants to the pistillate), it is a burdensome task to have to do it by hand; will the Hermaphrodite therefore fructify, having both organs perfect? If the editor will append a note of explanation, he will confer a favor on a subscriber and a tyro in horticulture.

C. Legg, M. D.

It is of considerable importance to regard the sexual differences of the strawberry. A pistillate strawberry plant will produce fruit occasionally when quite beyond the reach of pollen from the staminate, but, only so far as our observation goes, when the plants are in very favorable circumstances, and even then, are usually deformed, and inferior in size to properly fertilized specimens.

There is usually a considerable degree of constancy in the sexual character of the strawberry, but there is nothing improbable in the idea of its changing occasionally; no part of a flower is so liable to change its form as the stamen. A pistillate blossom is nothing more than a hermaphrodite, with the anthers abortive, which nature evidently intended should be fully developed if circumstances should so favor. As a rule, regard the sexes as constant, but be prepared to admit the exceptions.

(W. E.). The best American book on insects is, undoubtedly, Harris's—published in Boston. Fitch's *Reports*, published at Albany, are also valuable, and Westwood may be consulted with advantage. For the birds of America, Wilson and Nuttall. The prices you must ascertain from the booksellers. Wilson's great work may be procured in octavo. Audubon, we need scarcely name, as you must be familiar with its value.

(A Lady Subscriber, Virginia). Ferns will probably be your best plants for rock-work, provided it is shady and moist. The new vervain-leaved verbena, Imperatrice Elizabeth, is admirably adapted, as are the other kinds also. The beautiful little ivy-leaved antirrhirum, called the Wandering Jew, will grow well, and be highly ornamental. Vines of many kinds should be mixed among the other plants, such as are known and accessible. The "Clover Hill Seedling Strawberry" is not cultivated yet for sale, that we have heard of.

"The Most Magnificent."—We scarcely can say, but, as we write, we are inclined to give the preference to the leaf and flowers of the Magnolia macrophylla (large-leafed Magnolia) as the most magnificent objects in the floral adornments of June. Specimens from this perfectly hardy tree are before us—the flowers literally as large as a bucket; the tree from which they were taken is twenty-five years old.

(A. B. B.) You will find Swift's Lawn Mower advertised in previous numbers. Address the maker, Fishkill Landing, New York.

CHERRIES.—There is no better guide to the trimming and pinching of cherry-trees than Barry's *Fruit Book*, and, generally, we may say with a neighbor: "It is about the only book that can be generally understood."

THE GOLDEN HAMBURG GRAPE, which it was expected would have been offered to the public last fall, has not yet been "let out," but Messrs. Veitch, of England, advertise it as to be ready on the 15th of this month (July), price twenty-one shillings each—"one over or three to the trade, with special terms when twenty-five and upwards are ordered at the same time." There is no doubt of its great value. It is a superb fruit, and the advertisers, who are backed by the awards of numerous societies, say:—

"In hardiness of constitution, freeness of setting its fruit, size of bunch and berry, and fineness of flavor, it is equal to the Black Hamburg, with the distinction of being, when fully ripe, of a beautiful amber color, thus at once showing it to be a first-class fruit, altogether distinct from all other light-colored grapes, and well adapted either for a greenhouse or for forcing."

CATALOGUES, ETC., RECEIVED.—Godfrey's Narrative of the Last Grinnell Arctic Exploring Expedition. Philadelphia, 1857. Quite an amusing account.

Circular of Shepphard's Forwarding and Commission Horticultural Nursery and Seed Agency, 159 Front Street, New York. A novel and important business.

Carolina Sports, by Land and Water, including Incidents of Devil Fishing. By the Hon. Wm. Elliott, of Beaufort, S. C. Second edition. This is a most spirited account of sports as new to the world generally as they are graphic and entertaining. Written by a scholar and a gentleman, with every appliance at hand, we are free to say the sketches equal anything penned by the celebrated English writer, "Nimrod." Why it is not more known at the North is a mystery to us, though *printed* in New York at the Steam Power-Press of Trehern and Williamson, 47 Ann Street.

Report to the Governor of South Carolina on Algerian Cotton Culture. By the same author.

The Elliott Letters of Agricola. By the same author.

Address to the Imperial and Central Agricultural Society of France, read before them at Paris, July 4, 1855. By the same, Commissioner of South Carolina to the Universal Exhibition. Mr. Elliott read this in French, if we remember rightly, and was complimented on its purity of diction, and his perfect pronunciation of the language.

Premiums and Regulations for the Eighth Annual Fair of the Warren County (Ohio) Agricultural Society, September, 1857. We note, with thanks, numerous premiums here also, of volumes of the *Horticulturist*.

Supplement aux Catalogues de Vilmorin-Andrieux & Cie., Quai de la Messagerie, 30, à Paris.

Prix-Courant de Louis Van Houtte, Horticulteur a Gand (Ghent) Belgique, 1857.

FLOUR OF SULPHUR A CURE FOR THE MILDEW ON THE GRAPE.—It is wondrous strange that the *savans* of Europe have just made this discovery, when it has been published in this country over twenty years. I believe, first in the *American Flower Garden Directory*, in 1832, and known now by every American garden laborer, though our vines are occasionally touched by the method of its application. Allow me to give you two. First. Our sulphur water-tub is always filled, and ready on call. We take a piece of stone lime (about four inches square); place it in a tub; put over it four gallons of boiling water; cover it over with a thick cloth; allow it to boil a few minutes; then stir the lime and sulphur freely,

to a paste, and add about twenty gallons of cold water, allowing the whole to settle. When settled, we take the pure amber-colored water, and syringe any article that has symptoms of mildew. Patrick had charge of two of our houses. I directed him to syringe certain plants with sulphur-water. He kindly stirred up the whole, and gave them a good coat of lime and sulphur! Such a sight! "Why, Patrick, where did you learn that method?" "Indeed, sir, that's the way we do in London." Another way they do in London, is to dust sulphur all over the plant and fruit. This is filthy in the extreme.

Now for the American way: Take a few pounds of sulphur, and place it on several pieces of boards, as neatly as you please; keep them in your grapery, stirring the sulphur once a week, and you will have no mildew, unless you give heavy waterings, and allow cold currents of air. Yours, &c., ROBERT BUIST.

PRUNING, AND OTHER MATTERS OF INTEREST. (*A letter not intended for publication*).—J. JAY SMITH, Esq.—DEAR SIR: All plants that are deciduous are not dormant, in the literal meaning of the word. Even in winter, plants derive nourishment from the soil, and are constantly adding to their substance. It is also a well-known fact, that the greatest flow of sap is towards the extremities of the branches; or, rather, the sap is elaborated and solidified first at the extreme joints. When pruning is deferred until spring, much of the matter gained during the winter is cut away and lost; hence the practice of deferring the pruning of very luxuriant trees until just starting into leaf, with a view of weakening the growth. But, when pruned in the fall, it will be observed that the buds nearest the end, just below the cut portion, will swell up prominently during winter, will burst out more vigorously in spring, and grow more luxuriantly, than they would have done if similarly pruned in spring. I consider it a very important point in hardy grape culture, for our seasons are not too long for the proper elaboration of wood, and the gain of a week or two in growth is of importance. I have satisfied myself, in practice, that there is much to be gained in the growth of shoots by this method of pruning.

I am deterred from stating my honest belief on many things, because they are so much opposed to existing practices, as would make them be considered absurdities. I have always advocated low night temperature in forcing and greenhouses—indeed, all structures for plant growing—and have been *talked to* about it by practical gardeners; although I have never yet advocated it to the extent that I have practised it.

I have had foreign grapes in flower with the thermometer at the freezing point; gardeners would go crazy if the thermometer went below 50° at that time. I have allowed my pine-apple pits to fall as low as 40° in wintry nights; 60° is the lowest any *rational* gardener thinks of; yet these very men would praise the sturdiness and healthfulness of my plants. I have been in the habit, these last five or six years, of letting my greenhouse fall down to 35° every night—frequently to 29°; yes, I have had 4° degrees of frost inside, where there were *orchids*, *stove plants*, and *hothouse* plants, of the most costly and best sorts. I never could get Camellia blooms seventeen inches in circumference, nor Chinese Primroses two inches in diameter, until I adopted that course; but then, there must be a corresponding treatment; plants must be brought into a state to stand this treatment. Suppose any one in the habit of keeping up a high night temperature, were to adopt it suddenly; he would kill his plants in one night.

The same with soil. I have not, these last six years, used anything but fibry loam for potted plants, no matter where they come from, or what they were. Gardeners will tell you that they cannot grow heaths, epacrises, &c. &c., as in the *ould* country, because they "can't get peat" here.

I have had as good heaths growing in loam as ever I had in Wimbledon peat, or even in peat that I have gone myself and selected on Wimbledon Common; and I know what it

is to grow these plants. I had under my charge one of the best collections in England; for individual specimens they were not surpassed. One of the best practical gardeners in America, on seeing my heaths in Maryland, said he never believed, until then, that they could be grown here.

Even in cultivating the soil, I almost indorse Jethro Tull, who insisted that stirring the soil was all the manure it required. The thing seems quite reasonable, when we look for a moment at the structure of plants. Just look at that desk before you; it seems solid and ponderous enough. Throw it into the fire, and see how quickly it will "end in smoke." "The things that were Cæsar's are rendered to Cæsar." It has gone into the atmosphere from whence it came, and you may reasonably suppose that the tree that produced it was more indebted to the air than the earth. Depend upon it, we "know nothing" about cultivation yet. But it is too early to advance *extreme* views; they are looked upon as altogether out of reason.

And yet, when Hugh Miller (author of the *Foot-Prints of the Creator*, the *Old Red Sandstone*, &c.) mentioned to Professor Agassiz that some of his opinions relating to his discoveries, seemed to himself so extravagant that he was afraid to communicate them, Agassiz replied: "Do not be deterred, if you have examined minutely, by any dread of being extravagant. The possibilities of existence run so deeply into the extravagant, that there is scarcely any conception too extraordinary for nature to realize."

I have written a long letter, when I only intended half a dozen lines.

Very respectfully, S.

Peabody's Seedling Strawberry.—A very exquisitely prepared tin box, with breathing holes, reached us on the 9th of June, and proved to contain specimens from Mr. Peabody of his ripened strawberries. We can readily understand his remark, that the late frosts materially damaged this fruit, and curtailed its size, for we saw the results of the cold when recently in Georgia. Their flavor, beauty, and keeping qualities, were, however, uninjured, though they had travelled six miles from Mr. P.'s grounds to Columbus, in a wagon, three hundred miles thence to Savannah, and some eight hundred miles to Philadelphia, by steamship. A large party partook of these berries, and pronounced the flavor excellent, though, of course, disappointed with the size, from the cause above stated. It will require another year to enable growers to decide on that.

The Marylandica Strawberry.—One of the finest strawberries, if not the very finest, we have ever seen and tasted, comes from Samuel Feast & Sons, of Baltimore. It is the berry that took so many premiums in the hands of the late Dr. Edmondson, who would never part with a plant. Messrs. Feast have the control of the whole stock, and we advise cultivators to look after it at once. These strawberries are entirely different from any other we know; the vines are very strong; leaves, dark and glossy; many of the berries have a footstalk from five to six inches long; fruit, very large, often flattened, solid, and firm, bearing transportation remarkably well. The interior is perfectly beautiful, cutting almost as solidly as a pear, without any toughness; well colored and luscious, requiring less sugar than most. We pronounce them invaluable.

Harrisburg, Pa., June 16, 1857.

Dear Sir: I send you by express a plant in bearing, and a cluster (separate) of the Scarlet Magnate Strawberry. I have selected about average specimens; might have selected some larger, but very few smaller that were ripe. None of them are fully ripe yet, owing, perhaps, to the soil being too rich. My plants have been grown entirely too closely—so closely, as to crowd each other. Though several hundreds were removed, they still stand

as stated. They have also been rather neglected, in other respects. But for these circumstances, I think the berries would have been much larger.

Mr. Gross, of Harrisburg, obtained a few plants from me, late in the spring. Last week, he took from them about a dozen berries, measuring from three and one-half to four inches in circumference.

Altogether, I consider the Magnate a very desirable berry. I have it growing side by side with Hovey, British Queen, Alice Maude, Scott's Seedling, Longworth's Prolific, and McAvoy's Superior, and taking into consideration all desirable qualities, I greatly prefer it to any and all of them. It has even equalled Hovey with me, in size, besides being, I think, better flavored, a much better bearer, and uniform in size. In fact, it appears as if there will be *no small* berries. Respectfully yours, H. A. Mish.

New and Desirable Plants.—We have received from Mr. R. Buist two boxes of plants that deserve attention. Accompanying the boxes was the following, as usual, laconic note:—

Rosedale Nursery, Philadelphia, June 10, 1857.

"Mr. J. J. Smith.—Dear Sir: I sent you (yesterday) a few items; some of them, I know you have, but they are yet scarce, and you may find room for duplicates. Others, which are acquisitions, I know you have not, and editors are expected to have and know all things. Yours, truly, R. Buist."

[We wish you may never be disappointed.—Ed.]

We are particularly pleased to receive some of these beautiful objects—the violet Wistaria especially. The Pelargoniums, for which Mr. B. is famous, are superb. But the list shall have remarks appended, and here it is:—

Poinceana Gilesii. Stood the winter of 1855, and bloomed freely in a dry, warm exposure.
Verbena Mrs. Woodruff. A most dazzling beauty.
" *Imperatrice Elizabeth.* Already strongly recommended for its beauty and novelty of leaf.
Glycine violacea. Quite hardy, quite new, and very valuable.
Phygelius capensis. *New*, admired by Hooker. Have not seen it in bloom here yet.
Veronica variegata. Superb.
Juniperus oblonga pendula. Quite hardy, as we are informed.
" *Bedfordiana.* Do. do.
Rosemary-leaved Boxwood. Hardy.
Viburnum plicatum. Hardy, fine, *pure* white.
Vitis variegata. A climber; has red, purple, and blue fruit, which we have not yet seen.
Berberis Danonii. Stood the winter of 1855–6–7; golden yellow.
Thuja decurrens. They are very distinct; the latter will most probably be hardy.
" *gigantea.* Do. do.
Saxe-Gothæa conspicua. A yew from South America; hardy.
Wellingtonia gigantea. Mr. Buist thinks this quite hardy, and that it should be planted in good loam. The English are killing it with peat; some of them suppose our *oaks* grow in peat.
Pelargonium (fancy) *Jenny Lind.* Pretty pet plants for the ladies.
" " *Calabrian.* Do. do.
" " *Burk.* Do. do.
" " *decora.* Do. do.
" *Kulla.* This has the *new* feature of a spot on each of the under petals of the flower.
" *albira.* Do. do. do. do.
" *Lagoma.* Do. do. do. do.

Geranium Auber Henderson. New, white.

" *Bishop Stow.* New, scarlet. Both first-rate in their class.

Achimenes Ambrosie Verschafeltii. New, striped.

WASHINGTON CITY, D. C., June 11, 1857.

MR. EDITOR: I send you this day, by express, fruit of "Vicomtesse Hericaut de Theury" Strawberry, that you may see its character a second season. The descriptions then given will hold good now. "Fair size, bright color, firm flesh, and exquisite flavor;" the latter quality may be somewhat injured by late heavy rains. The weight of any given quantity of the fruit will be found much greater than a like quantity of Hovey's Seedling. Its foliage sustains no injury in the hottest weather, and the intense cold of last winter it passed through much better than any of the native sorts grown side by side without protection. In fact, I am better pleased than ever with the strawberry, and other good growers in this vicinity think quite as highly of it. Respectfully yours, JOHN SAUL.

[Received in good order. We have nothing to say against this berry, which has succeeded well in our own grounds, from plants sent by Mr. Saul. It is among the best.—ED.]

DE KALB CHERRIES.—In Georgia, the De Kalb Cherry has been remarkable for the regularity with which it produces a crop. We remarked the circumstance of all the De Kalb varieties looking very healthy at Mr. Peter's garden in Atlanta, where all the other cherries were ruined by the uncommon frost of March last. Mr. Peters has taken the trouble to forward specimens, which arrived in good order, accompanied by the following note:—

DOWNING HILL NURSERY, ATLANTA, GA., June 10, 1857.

"DEAR SIR: We ship you this morning, per express, a small box of the De Kalb Cherry, by which name it is known here. We regard it as a valuable cherry, not so much for the superior quality of the fruit, but as a free and never-failing bearer. It has been known here about twenty years, and has never failed to produce an abundant crop. The present season, every De Kalb Cherry-tree on our place is loaded with fruit, and among our collections of cherries (which is quite extensive), *not another tree* has produced a single specimen, all having been killed by the frost.

Yours, very respectfully, PETERS, HARNDEN & Co., *Atlanta, Ga.*"

GRAPES.—An editor fed upon forced sweet grapes, could scarcely be expected to grow sour. Several parcels, and baskets, and boxes of delicious hothouse grapes, have the express-men delivered at our door the past month; *such* grapes as only can be grown in America, and, we must say it, as are rarely grown, except at the North, where the cold is of so long continuance as to make in-door culture of fruit a necessity to the wealthy. We dare not particularize, but will go so far as to say, some of these pearly festoons are from graperies described in the *Horticulturist*, and from friends who will receive this as it is meant—a memento of grateful remembrances. The Hon. William Elliott, in his capital sketches, called *Carolina Sports*, says a truth which may be applied to grape and orchard houses, when he exclaims over the haunches of three saddles of venison, and a wild turkey of his own shooting: "My young sporting friends, a word in your ear: the worst use you can make of your game, is to eat it yourselves!"

SALE OF ORCHIDS.—A fourth portion of Messrs. Loddiges' orchids, and also the collection of a "well known amateur," have been brought to the hammer, in London. Of the prices they realized, the following are a few of the more important: Aerides Schröderi brought

£31 10*s.*; A. quinquevulnera (the best variety), £15 15*s.*; Cœlogyne Lowi, £22 1*s.*; Vanda violacea, £20; V. suavis (Veitch's variety), £15 5*s.*; the larger variety of Saccolabium guttatum, £17 17*s.*; Dendrobium Dalhousieanum, £12; D. Farmeri, £8; Phalænopsis amabilis, £13; Angræcum caudatum, £9; Cattleya spectabilis (a kind in the way of marginata), £11; C. labiata, £10 10*s.*; Cypripedium caudatum, £5 5*s.*; Lælia grandis, £5 10*s.*; and Oncidium Lanceanum majus, £5 5*s.*; other lots fetched from 10*s.* to £3 per lot.

Ornaments.—Rustic stumps and baskets are highly ornamental, when kept in perfect trim. Few things look better in front of a cottage than a basket on a pedestal of unbarked timber; the basket itself woven of stout willows, or made from well selected pieces of tree loppings—the hazel, especially. In the fall, such a basket might be filled with bulbs, and covered thick with leaves in the winter. When these come out, it may be furnished with showy annuals, or a mixture of half hardy shrubby exotics. The plants best suited for summer blooming in rustic baskets, and on hollow tree stumps, are fuchsias, calceolarias, geraniums, hydrangeas, petunias, cinerarias, China roses, verbenas, nemophilas, mignonette, pimpernel of all kinds, and mimulas.

The stiff-growing plants should occupy the entre, and those of drooping habit the sides. If ferns are grown with flowers, the soil should be a soft peat, with a mixture of leaf mould and sandy loam. These ornaments require frequent attention, and copious supplies of water. They should be covered with pitch inside, to keep them from the ravages of damp. On a large scale, there is scarcely anything so suitable to cover the handles as the Dutchman's pipe.

Slugs.—Procure a gallon or two of wheaten bran, or brewer's grains, and on a mild evening, just before or after a shower, place little patches of it about the garden in all directions, especially near box-edgings and similar places of retreat. About nine o'clock at night, provided with a good lantern and candle, and armed with a potful of air-slaked lime, visit all the little patches of bran in succession; you will probably be astonished at the vast numbers of these enemies congregated and feasting at your expense, when, with the pot of lime, you can give them such a dusting as will prevent them from ever again troubling you. If this plan be persevered in for a short time, the garden will be effectually cleared of slugs. I have applied this remedy for many years, and have never known it to fail.—*H. Mitchell.*

Ducks are said to be great destroyers of slugs and other vermin. Young broods may be allowed to wander about the garden every evening, and it is amusing to see the zeal with which they attack the enemy; but quick-lime, used so as not to disfigure the garden (say one peck per acre), if quick and fresh, is an excellent remedy.

Steeping Seeds in Glycerine.—About the end of March, 1856, some one had given this out as an important discovery, to promote vegetation of seeds. It consisted simply in steeping the seeds in glycerine. Being in the way of receiving seeds from various foreign parts, with which I had often great trouble and innumerable failures, having found all recommended appliances useless, a correspondent of the *Gardener's Chronicle* says: "I set myself with avidity to try this new agent. Just then I had received a packet of seeds from the Andes, containing a very rare Gentiana from the snow limit. Of all things, few

are more obdurate than Gentian seeds. These, I was assured, were quite fresh and newly collected when dispatched, being some seven weeks before they reached me. I divided a portion of the Gentian seeds into two; steeped the one-half in glycerine, and sowed them in one-half of a small pot, divided from the other by a partition; the other half of the seeds I sowed plain in the other half of the same pot. These sowings were done on the 3d April, 1856. In about two months or so, the seeds sown plain began to vegetate, and I had about twelve or fourteen up in the course of the summer. Of the seeds steeped in glycerine, the first and only one yet vegetated appeared only yesterday in the seed leaf. But in the hope of its efficiency, in an evil hour I steeped many other seeds in glycerine, especially seeds of the Sida pichinchensis, and none of these have I yet observed to stir. My experience, therefore, of glycerine is, that it is not only of no use to promote vegetation, but that it is a positive hindrance to, if not a preventive of, that operation."—*Isaac Anderson, near Edinburgh.*

Farm for Sale.—We ask attention to the advertisement of a farm for sale in Westchester County. It has many advantages, such as a fine view of Long Island Sound, with two hundred acres of land covered with fruit of all kinds, and within less than an hour of the city.

Eugenia ugni (pronounced Un-yee) is being elevated to importance among eatable fruits. The plant thus called is a native of Chili, where it was first noticed in the beginning of the last century, by the celebrated traveller, Father Feuillee, who published a description and figure of it under the name of Murtilla. It forms an evergreen bush, with the appearance of a Myrtle, but with darker and thicker leaves. It is also somewhat hardier than a Myrtle. The flowers (which are white, with a tinge of pink and a peculiarly waxy appearance) hang down singly from among the leaves. The fruit consists of black purple, round berries, about the size of black currants, and, when ripe, resembles, in taste, nothing so much as a mixture of the strawberry, pine-apple, and purple guava. In our opinion, it is one of the most agreeable fruits that have yet been introduced to cultivation; and although the smallness of the berries would seem an objection, yet their quantity compensates for their want of size.

One important quality belonging to the Ugni is the easiness with which it is cultivated. No reason, indeed, seems to exist why it should not be grown wherever the common Myrtle can be kept alive. When producing its fruit, however, it requires all the heat that can be given it; so that, if grown in pots, it should be placed, as soon as the flowers are set, in the hottest part of a garden, fully exposed to the heat of the sun—such as the angle of a wall facing the southwest, or in a conservatory, in the full rays of the sun; and, if out of doors, it would be as well to protect it from night cold by a temporary roof, reaching completely over the front of the bush.

These are mere suggestions; by another year, further experience will have been gained, for large numbers of the plant have been recently purchased. The fruit, which has been tasted, and to which the above description applies, was all ripened under glass.

Peruvian Trees.—One is not aware of the great height of the trees here (River Ucayali, Northern Peru), until he attempts to shoot a monkey or bird from the topmost branches. He is then surprised to find that the object is entirely out of his reach with the fowling-piece, and that only a rifle will reach it. The trees throughout this country grow with great rapidity, and, being in a light, thin soil, with a substratum of sand, the roots are superficial, and the trees are continually falling down. Nature seems to have made a provision for their support; for, instead of the trunk coming down round to the ground, about ten feet above, it divides into thick, wide tablets, which, widening as they come down,

stand out like buttresses for the support of the tree. But even with this provision, no day passes that we do not hear the crashing fall of some giant of the forest. LT. HERNDON.

CAMELLIA RETICULATA.—In a late English horticultural journal, we find the following: "Among subjects of exhibition were some of unusual interest, and, considering the coldness of the weather, they were more numerous than could have been expected. Mr. Standish, of Bagshot, sent an example of the double-flowered Camellia reticulata—a variety which the Chinese were known to possess, but which has never before been introduced to this country. This new variety was sent to Bagshot, some years since, by Mr. Fortune, from the north of China. He bought it from a Chinaman, under the representation that it was a double reticulata, which has proved to be the fact. It entirely resembles reticulata in leaf; the flower is a vivid crimson, and quite double, and the plant is said to be a much better grower than even that gigantic kind. A bloom on a strong plant, about three weeks since, was reported to measure five and three-fourths inches across, and to be perfectly double; but the one on the specimen shown was not so large as it was on a small side branch. When planted out, however, and a strong plant, Mr. Standish had no doubt that it will grow and produce blooms of enormous size. It must therefore be regarded as a great acquisition."

A LADY.—A gallant gardener, discoursing on parlor plants, introduces his readers to feminine charming collars, and neat, spotless, embroidered wristbands, and says: "A lady is none the less a lady, if she dispenses with these latter accessories at times, and must do so if she would have pleasure and success in gardening. I have been thanked with a look of amazement that said as plainly as possible: 'What a thoughtless, careless thing I have been!' when, on turning up my sleeves, spreading the fingers and palm of the left hand over the surface of the soil in the pot, and turning the head of the plant topsy-turvy into a pail of water, moving it briskly several times through it; then setting it upright, and washing every leaf, upper and lower side, between the fingers and thumb; then swinging it again through clean water, and setting it once more in its position as pleasing a gem as a queen could wish to have in her company. There are many plants a disgrace to windows, because, from something like despair, the owners never try to keep them clean. Nimble fingers would soon make all the filth disappear. I have seen more time spent in a morning, in unavailing regrets, than would have sufficed for setting adrift every insect and dust spot from their favorites.

"The above mode of action is applicable to all smoothish-leaved plants, as myrtles, camellias, oranges, &c.; and if a little soap is dissolved in the first water, and in the washings before the last swingings, so much the better. When, on examining the foliage, you find that it is supplied with bristly hairs or down on either side, then a sponge will be preferable to the fingers. In all other cases, the fingers will be best, as no mechanism can ever be made to equal them. It will also be advisable, in all cases, for beginners to have a piece of loose cloth to place over the surface soil of the pot before the palm and fingers are placed across it with one hand, while the other hand, holding the pot, reverses the top of the plant in the water. The cloth thus held prevents the soil dropping out, and when the plant is set upright, and you are washing or sponging the leaves, the filth obtains no entrance to the soil. When finished, scratch off a little of the surface soil, replace with a little fresher, and if the pots are likewise clean, all will then look comfortable."

ERRATA.—The printer has given our readers the benefit of an *erratum*, which, no doubt, was mentally corrected by readers of page 262, in the last number, where it is recommended to place trees received in a dry or shrivelled condition in a barrel, without a bottom, and

fill up with *tar* or sawdust. *Tan* was written. These slips are sometimes ludicrous enough; *nancy* is generally printed, in our first proofs, for *nana!*

The name of one of the gentlemen who interested himself so successfully in collecting subscriptions for the park, should have been Charles S. Keyser, Esq., instead of C. W. Keyser.

We hail with much pleasure the appearance, under the guidance of Messrs. Siebold and De Vriese, of the *Annales de Horticulture et de Botanique*—a new monthly periodical, published at Leyden, and intended to illustrate the more interesting of the cultivated and ornamental plants found in the Dutch possessions in the East Indies, America, and Japan. It is, we presume, the successor of the *Tuinbouw Flora*, which, being written in Dutch, was a sealed book to most persons in this country. The number before us contains a colored figure of a Tree Pæony called "Impératrice de France."

The last number of the *Archives du Museum* contains a continuation of Mons. Weddell's careful, learned, and judicious work on Urticaceæ. The plates are beautiful examples of scientific art, as the treatise itself is an honorable example of systematical science.

Horticultural Societies.

Pennsylvania Horticultural Society.—The regular stated meeting of this Society was held at Concert Hall, on Tuesday evening, when the extensive tables of the Society were entirely covered with a splendid display of plants, flowers, &c. Mr. Mackenzie, Mr. Dundas, and others, exhibited, for the first time, a number of new plants, which attracted much attention. A lot of grapes, in pots, composed of plants of foreign origin, were exhibited by Mr. Raabe. Mr. Buist exhibited one hundred and twenty varieties of cut roses; pine-apples in pots, and a great variety of strawberries, were also exhibited. In the department of vegetables, Mr. A. L. Felten made his usual large and excellent display, receiving the first premium as a market gardener. Mr. Buist received a special premium of $5 for his display of cut roses. Premiums were also awarded for grapes, and for the best cherries, to A. L. Felten, and also the second best for strawberries. The entire display was in every way creditable, reflecting the highest praise upon all the competitors and the Society.—*Ledger.*

Calendar of Operations.

JULY.

THE VINEYARD.

BY R. BUCHANAN, CINCINNATI, OHIO.

Much of the work of this month is but a continuation of that recommended for June: tying up, removing lateral shoots and suckers, keeping the weeds down, &c. &c. Some vine dressers recommend stirring the earth with the plough, the cultivator, or the hoe; others, merely to keep the weeds down with a hoe, or even a short scythe, and not to cultivate the ground until the grapes begin to color a little, for fear of inducing the *rot* by opening the earth to admit too much moisture. Experience has not yet sufficiently tested which of these two methods is best. I prefer the latter.

The vines grow very rapidly this month, and will require close attention in tying up. The bearing canes for next year will reach the tops of the stakes, and should be trained over and fastened to the adjoining stakes.

About the latter end of June, and during this month, the *rot* (our great enemy) usually appears. Arising principally from atmospheric causes, it is difficult to find a remedy for it; but in porous subsoils, and in others well drained, it is found to be the least destructive. Many plans, by surface draining, special culture, &c. &c., are being tried, and it is hoped some partial remedy, at least, may ultimately be discovered.

BY WILLIAM SAUNDERS.

VEGETABLE GARDEN.—During dry seasons, there is frequently great difficulty experienced in the removing and setting out young cabbage plants, &c.; even although carefully watered and tended, many failures occur. Mankind instinctively resort to water as the great cure-all to diseased and languid vegetation; but it is seldom properly applied. No amount of water will cause a plant to grow that has been divested of its roots. Roots must first be encouraged before water becomes available. Plants that have been grown in a crowded seed bed, seldom come up with roots proportioned to the tops. They are, in fact, more like cuttings, and ought to be treated somewhat similarly. It is not expedient, on an extensive scale, to give each plant an atmosphere suited to its wants; therefore, the plants must be suited to the atmosphere, by diminishing the foliage. We have never found any difficulty in transplanting, when the leaves have been shortened or removed, and the roots puddled with soil. Even trees can be removed during the height of their growth, when treated in a similar manner, and many kinds more successfully than under any other circumstances.

FRUIT.—Plantations of strawberries may be made this month, and, if properly cared for, will produce largely next season. Manure heavily, and incorporate it thoroughly with a good depth of soil. Give the plants plenty of room, and do not be deterred from manuring heavily by a supposition that you will have all *vine* and no fruit, which is a very probable result when the plants cover *all* the ground.

GRAPES UNDER GLASS.—We are more than ever convinced that what is termed the *close-spurring* system of managing grapes, is an erroneous one. This, and deficient ventilation, are the great source of badly colored grapes, unripened wood, and consequent winter-killed plants. Allow for the gradual extension of the plants, by thinning them out as they get crowded; if one plant ultimately fills the house, so much the better. Keep the house well ventilated during the night. that the wood may mature as it advances in growth, and keep the atmosphere charged with moisture during the day, by sprinkling water on the soil; if the inside borders get dry, give a thorough soaking once a week, with rain water. On no account water with *cold* spring water, unless you wish to study its effects in producing rot, mildew, and other maladies.

PRUNING.—The science of pruning does not seem to be generally understood, notwithstanding all that has been advanced on the subject. Summer is recommended by some as the best time, while others say that winter is the proper season. So far as simply thinning out the branches of an old and well established tree, it perhaps matters but little what season is chosen for the operation; but as practised for the production of fruit, in opposition to the production of timber, as special objects, the season is all-important. Fruit growers who are conversant with pruning, recognize these distinctions, and act accordingly; they know that when a luxuriant, healthy tree has attained a fruit bearing size, but shows no disposition to fruit, the barrenness is owing to preponderant wood growth, which must be checked, in order to encourage the formation of flower buds. They also know, that by diminishing the foliage during growth, the plant is weakened; that by rubbing off a bud in May, prevents the necessity of cutting out a branch in November; that by pinching out the point of a growing branch, lateral branches are immediately produced from buds that would otherwise have remained dormant until the following season; and, on the other hand, that to strengthen a weakly tree, every leaf should be carefully retained during summer, and the branches pruned severely after the plant has become deciduous. The results of winter and summer pruning are as important as they are dissimilar.

SHRUBBERY.—The aridity of our climate, and want of shade and shelter in many situations, render the cultivation of evergreen shrubs of local attainment. Latitude does not form a sufficient guide to the successful growth of broad-leaved evergreens. Sheltered valleys, in northern latitudes, may abound in them, while in seemingly more congenial climates, they will not thrive. Thick shrubbery borders add so much to the variety and interest of small places, that this want is severely felt. But we may form the largest growing trees into shrubs, as far as effect is concerned, by proper pruning. Beautiful bushes may be formed of the Norway and Hemlock Spruces, Arbor-vitæs, &c., by careful trimming, and pruning the strongest branches. Admirable deciduous shrubbery may be obtained by similar treatment on Maples, the Tulip-tree, Gums, Sassafras, &c. The great profusion of massive foliage which can thus be produced, with the variety of colors which such foliage undergoes during the various stages of growth, would add a feature to our shrubberies which they cannot now claim.

PINŌN REAL. CORAL TREE.